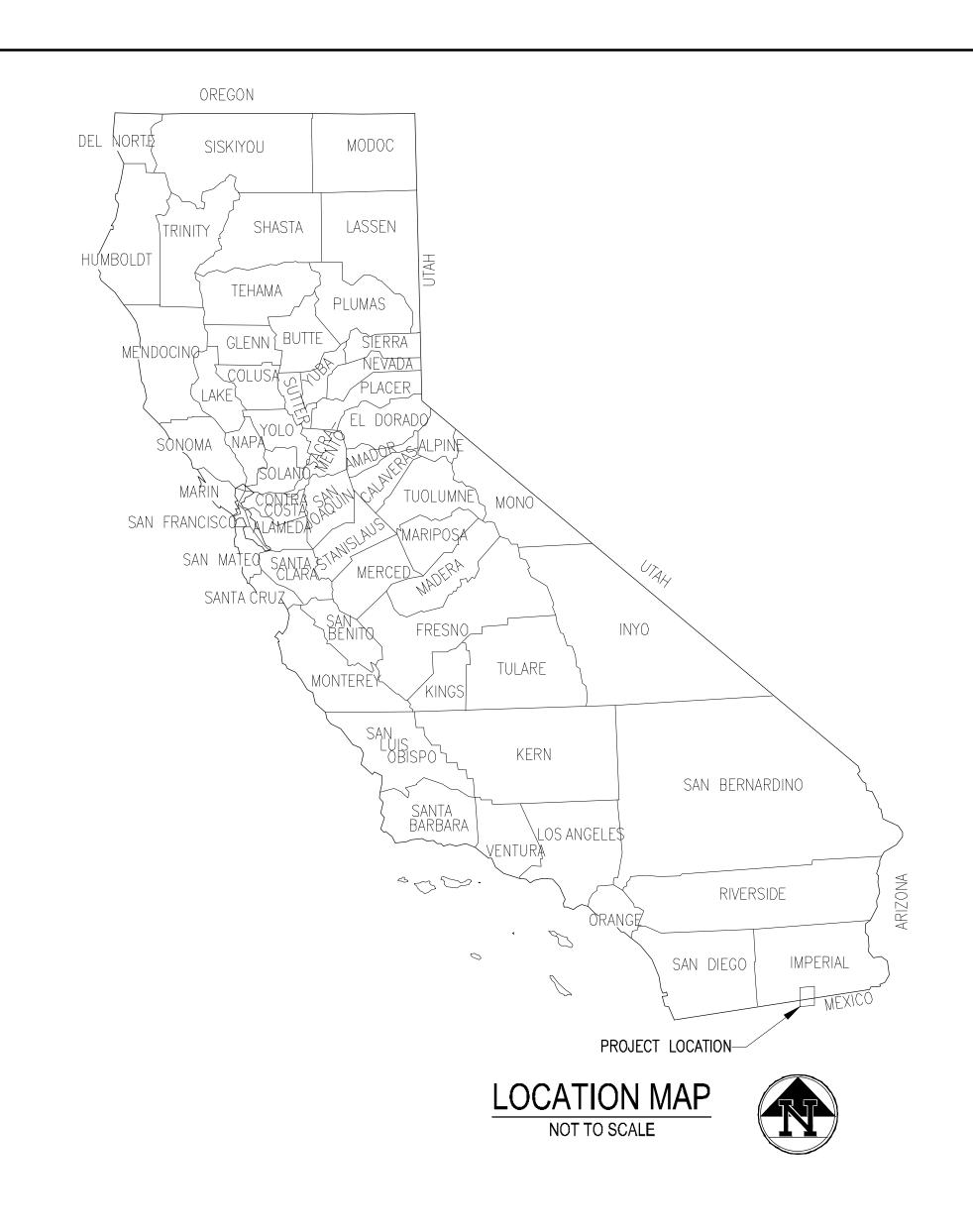
DEPARTMENT OF HOMELAND SECURITY CUSTOMS AND BORDER PROTECTION OFFICE OF BORDER PATROL

EL CENTRO SECTOR
ELC CAX RF - CALEXICO
FENCE REPLACEMENT PROJECT
CALEXICO, CALIFORNIA

DATE: JULY 25, 2017

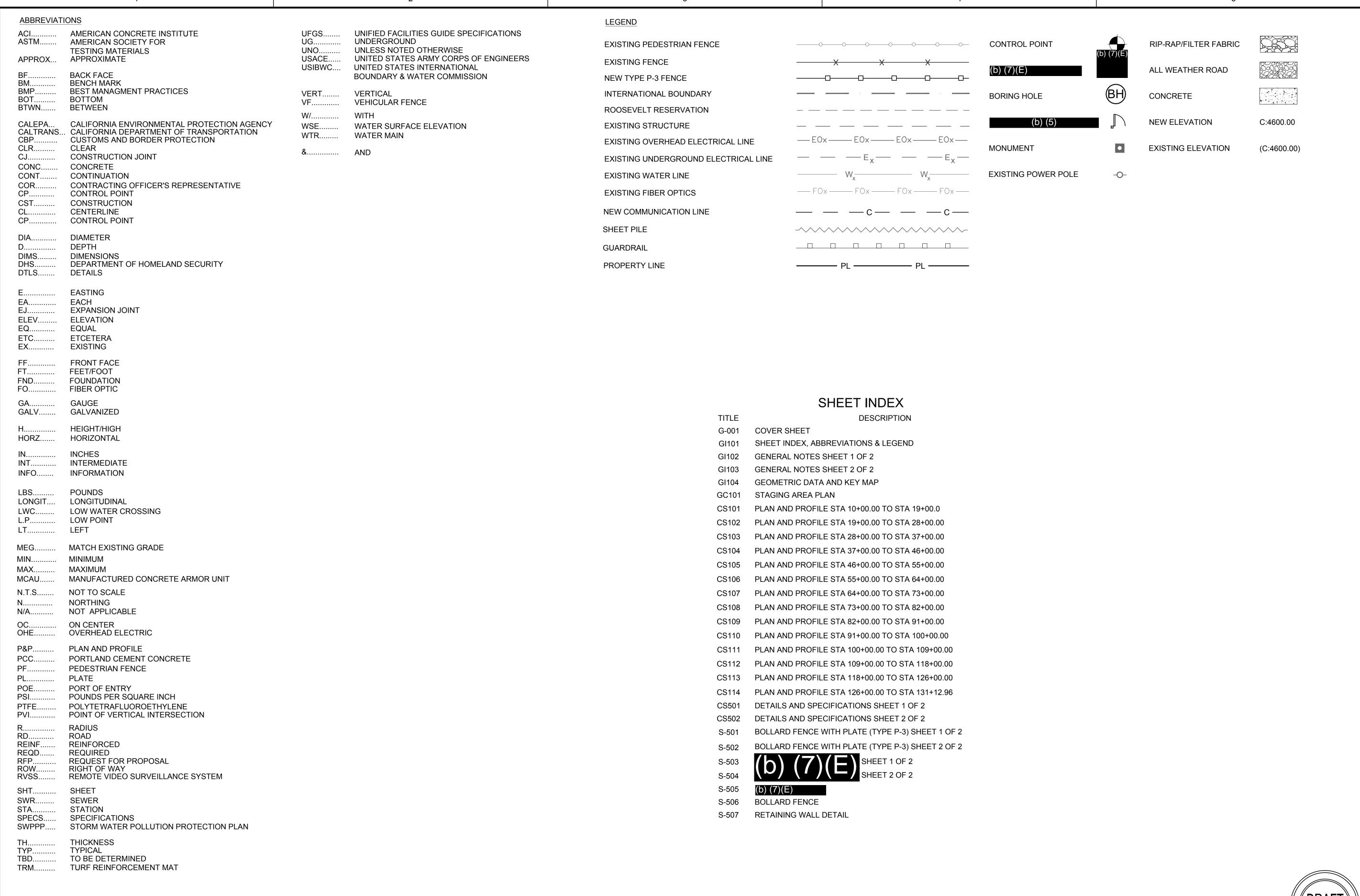
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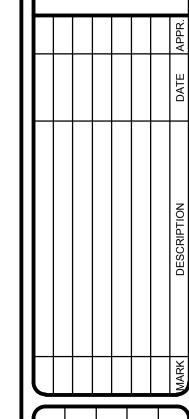








Baker Michael N T E R N 2929 N. Centra





SUBMITTAL

2. AT THE COMPLETION OF EACH WORK DAY THE CONTRACTOR SHALL HAVE PERMANENT OR TEMPORARY FENCE ERECTED TO EFFECTIVELY CLOSE OFF ALL GAPS IN THE FENCE UNTIL WORK RESUMES THE FOLLOWING DAY. CONTRACTOR SHALL MINIMIZE THE NUMBER OF VULNERABLE AREAS WITHIN THE PROJECT LIMITS. A VULNERABLE AREA IS DEFINED AS AN AREA TEMPORARILY SECURED AT NIGHT THAT DOES NOT HAVE THE EXISTING PRIMARY FENCE IN-PLACE OR THE COMPLETED TYPE P-3 FENCE. THE TEMPORARY FENCE MUST BE APPROVED BY THE RESIDENT ENGINEER PRIOR TO CONSTRUCTION. SEE 01 00 50 TASK ORDER REQUIREMENTS PARAGRAPH 1.8.10 CONSTRUCTION GUIDELINES FOR ADDITIONAL INFORMATION.

- 3. THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL RESPOND TO COMPLAINTS REGARDING DUST AND NOISE POLLUTION RESULTING FROM HIS WORK.
- 4. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS TO AND FROM ALL DRIVEWAYS AND STREETS, PAVED OR UNPAVED, AT ALL TIMES DURING CONSTRUCTION.
- 5. THE CONTRACTOR SHALL VERIFY AND CHECK ALL DIMENSIONS, LOCATIONS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS PRIOR TO THE START OF CONSTRUCTION. ANY UNCERTAINTIES AND DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER FOR CLARIFICATION PRIOR TO COMMENCING THAT WORK FEATURE.
- 6. THE PROJECT SHALL BE SECURED AT ALL TIMES DURING CONSTRUCTION.
- 7. THE CONTRACTOR SHALL DISPOSE OF ALL CONSTRUCTION DEBRIS AND OTHER WASTE MATERIAL OFF THE GOVERNMENT OWNED LAND AT AN APPROVED OFF-SITE DISPOSAL AREA IN ACCORDANCE WITH APPLICABLE REGULATORY AGENCY REQUIREMENTS. ALL PERMITS REQUIRED FOR OFF-SITE DISPOSAL SHALL BE OBTAINED BY THE CONTRACTOR.
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLIANCE WITH AND THE ENFORCEMENT OF ALL APPLICABLE SAFETY REGULATIONS.
- 9. IN CASE OF DISCREPANCY BETWEEN THE SPECIFICATIONS AND CONSTRUCTION DOCUMENTS, THE MORE STRINGENT SHALL APPLY.
- 10. ALL WORK SHALL BE COMPLETED TO THE SATISFACTION OF USACE, DHS, AND USIBWC.
- 11. CONTRACTOR SHALL CONFINE ALL WORK EFFORTS WITHIN THE ROOSEVELT RESERVATION UNLESS SPECIFICALLY AUTHORIZED IN WRITING TO DO OTHERWISE BY THE OWNER OR THE OWNER'S AUTHORIZED REPRESENTATIVE.

12. THE CONTRACTOR SHALL PRESERVE AND PROTECT OR REMOVE (WITH PRIOR WRITTEN APPROVAL OF AFFECTED PROPERTY OWNERS) ALL TREES, SHRUBS, HEDGES, RETAINING WALLS, LANDSCAPING, BUILDINGS, WALKS, ETC., IN OR NEAR CONSTRUCTION AREA. CONTRACTOR SHALL TRIM AND/OR CUT AS NECESSARY ANY TREE OR BRANCH WITHIN OR EXTENDING INTO THE USA IN ORDER TO PROVIDE A CLEAR ZONE BETWEEN THE NEW FENCE AND THE INTERNATIONAL BOUNDARY.

13. INTERMITTENT MONUMENTS MAY BE UNCOVERED DURING FENCE REMOVAL THAT ARE NOT SHOWN ON THE PLANS. THESE MONUMENTS SHALL BE PROTECTED IN PLACE. RE-ALIGN FENCE AROUND MONUMENT TO CLEAR CONCRETE MONUMENT FOOTING (3' OFFSET NOT REQUIRED)

- 14. THE CONTRACTOR SHALL COORDINATE REMOVALS AT POE TIE-IN WITH USACE COR, PRIOR TO COMMENCING WORK.
- 15. CONTRACTOR MAXIMUM SPEED LIMIT IS 30 MPH.
- 16. UNOBSTRUCTED ACCESS THROUGH THE CONSTRUCTION FOR BORDER PATROL MUST ALWAYS BE ALLOWED.
- 17. CONTRACTOR SHALL PERFORM EARTHWORK PER GEOTECHNICAL ENGINEER'S RECOMMENDATION FOR ALL SITUATIONS OR CONDITIONS NOT COVERED IN THIS PLAN SET.
- 18. ALL UTILITIES LOCATIONS ARE APPROXIMATE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

19. CONTRACTOR SHALL MAINTAIN ALL BARBED WIRE FENCES STANDING AT ALL TIMES AND SHALL REPAIR OR REPLACE IF DAMAGED AT OWN EXPENSE. CONTRACTOR SHALL CLOSE ALL OPEN AREAS WHERE FENCE IS REMOVED WITH BARB WIRE TO PREVENT CATTLE CROSSING ON THE BORDER. CONTRACTOR SHALL GUARANTEE THAT NO CATTLE WILL CROSS INTO THE U.S. DURING CONSTRUCTION.

20. GEOCOMPOSITE WALL DRAINS SHALL BE INSTALLED ON THE SOIL SIDE OF WING WALLS, RETAINING WALLS, AND CULVERT SIDEWALLS. THE GEOCOMPOSITE WALL DRAIN SHALL BE SELECTED FROM THE CALTRANS APPROVED PRODUCTS LIST. INSTALL 3" DIAMETER DRAIN PIPES AT 10' ON CENTER IN WING WALLS AND RETAINING WALLS.

DEMOLITION AND STRUCTURAL REMOVAL:

- 1. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL ITEMS CALLED FOR IN THE PLANS AT AN APPROVED OFF-SITE LOCATION:
- 2. SEE SECTION 02 41 00 DEMOLITION FOR ADDITIONAL INFORMATION.
- 3. THE CONTRACTOR SHALL NOT ALLOW FENCE PANELS BEING REMOVED TO FALL INTO MEXICO.
- 4. AT SEVERAL LOCATIONS ITEMS SUCH AS, BUT NOT LIMITED TO, TRAFFIC SIGNS AND MEMORIAL ITEMS ARE ATTACHED TO THE EXISTING FENCE. IF SUCH ITEMS ARE NOT REMOVED BY MEXICAN AUTHORITIES PRIOR TO FENCE DEMOLITION, THE CONTRACTOR SHALL REMOVE SUCH ITEMS & TURN THEM OVER TO THE COR.
- 5. AT ALL WASHES, WASH NUMBERS SIGNS THAT ARE WELDED TO THE EXISTING FENCE SHALL BE REMOVED AND TURNED OVER TO COR TO GIVE TO BORDER PATROL. CONTRACTOR SHALL COORDINATE WITH BORDER PATROL TO PLACE BACK ONTO NEW FENCE.

(b) (7)(E) 6. CONTRACTOR SHALL ASSUME AN EXISTING FOUNDATION WITH LANDING MAT IN ALL LOCATIONS WHERE EXISTING BOLLARD FENCE ARE LOCATED. AND ASSUME (b) (7)(E) WIDE WHERE MESH FENCE IS LOCATED. FOR LANDING MAT FENCE ASSUME (b) (7)(E) FOUNDATION AND REMOVAL SHALL INCLUDE FENCE PIECES EMBEDDED IN THE GROUND.

CLEARING AND GRUBBING:

- 1. PRIOR TO GENERAL SITE GRADING, AREAS TO RECEIVE NEW STRUCTURES SHALL BE STRIPPED OF ANY EXISTING STRUCTURES AND VEGETATION.
- 2. CONTRACTOR SHALL BE RESPONSIBLE FOR TRIMMING AND REMOVAL OF TREE OBSTRUCTING FENCE REPLACEMENT. FOR TREES ROOTED IN MEXICO THAT REQUIRED TRIMMING, CONTRACTOR SHALL COORDINATE W/ THE COR PRIOR TO CONDUCTING WORK.
- 3. WASTE MATERIALS INCLUDING VEGETATION, ROOTS, CONCRETE, SLURRY, AND DEBRIS WHICH ALSO INCLUDES ALL DRAINAGE DEBRIS COLLECTED AT THE SOUTH SIDE OF THE EXISTING FENCE SHALL BE DISPOSED OF OFF SITE BY THE CONTRACTOR.
- 4. SEE SECTION 31 11 00 CLEAR AND GRUB FOR ADDITIONAL INFORMATION.

STRUCTURAL STEEL:

1. STRUCTURAL STEEL SHALL BE PROCURED BY THE CONTRACTOR UNLESS OTHERWISE PROVIDED AS GOVERNMENT FURNISHED MATERIAL. SEE SPECIFICATIONS SECTION 05 12 00 STRUCTURAL STEEL FOR ADDITIONAL REQUIREMENTS.

EXCAVATION:

- 1. ALL EXCAVATED MATERIAL IS TO BE REMOVED FROM THE PROJECT PERMANENT EASEMENTS AND STAGING AREAS AND DISPOSED OF AT AN APPROVED DISPOSAL LOCATION, UNLESS OTHERWISE NOTED OR APPROVED FOR USE AS BACKFILL MATERIAL.
- 2. TRUCKS SHALL BE LOADED IN A MANNER SO AS TO AVOID LOSS OF LOADED MATERIAL OR ANY PORTION THEREOF DURING TRANSPORT IN ACCORDANCE WITH STATE LAW.
- 3. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPAIR ANY HAUL ROAD SURFACE IRREGULARITIES. CAUSED BY LOADING OR HAULING OPERATIONS.

CAST-IN-PLACE CONCRETE:

- ALL CONCRETE SHALL CONFORM TO
- (b) (7)(E)
- 2. SEE SECTION 03 30 00.00 10 CAST IN PLACE CONCRETE FOR ADDITIONAL INFORMATION.
- 3. ALL MIXING, HANDLING AND TRANSPORTING, PLACING AND CURING OF CONCRETE SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE AMERICAN CONCRETE INSTITUTE.
- 4. THE ONLY PERSONS AUTHORIZED TO ADD WATER TO CONCRETE TRUCK AT THE JOB SITE ARE THE COR OR REPRESENTATIVES OF TESTING COMPANY.
- 5. ALL EXPOSED EDGES SHALL BE CAST WITH (b) (7)(E)
- 6. JOINTS IN WALLS & SLABS SHALL BE PLACED PER SECTION 03 30 00.00 10 CAST IN PLACE CONCRETE.

DRAINAGE:

- 1. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE DRAINAGE AT ALL TIMES DURING CONSTRUCTION OF PROPOSED FACILITIES.
- 2. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES DURING THE INSTALLATION OF THE STRUCTURES AND DRAINAGE IMPROVEMENTS.

SWPPP

- 1. PREPARE AND IMPLEMENT A SWPPP AS REQUIRED BY CALEPA REQUIREMENTS AND PROJECT SPECIFICATIONS PRIOR TO CONSTRUCTION. IMPLEMENT BMPS DESCRIBED IN THE SWPPP TO REDUCE EROSION. SEE SPECIFICATIONS SECTION 01 57 20.00 10 ENVIRONMENTAL PROTECTION.
- 2. THE CONTRACTOR SHALL ENSURE THAT BEST MANAGEMENT PRACTICES (BMPS) ARE IN PLACE PRIOR TO AND DURING CONSTRUCTION OF THE FENCE. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT EROSION AND SEDIMENT CONTROL MEASURES COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
- 3. THE CONTRACTOR SHALL PROVIDE ONE SWPPP REPORT AND PLANS FOR CONSTRUCTION OF THE BASE BID AND OPTION ITEMS. PRIOR TO START OF CONSTRUCTION THE CONTRACTOR SHALL OBTAIN A NOTICE OF INTENT AND COMPLETE THE NOTICE OF ENDING UPON COMPLETION.
- 4. THE COR RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO MODIFY OR REVISE THE SWPPP TO INSURE THAT ALL CURRENT MEASURES TO PREVENT OFFSITE MIGRATION OF POLLUTANTS, INCLUDING SOILS, ARE INCLUDED IN THE SWPPP, IF THE SWPPP DOES NOT ADEQUATELY ADDRESS APPLICABLE BMPS OR IF THE CONTRACTING OFFICER DETERMINES THAT THE STORM WATER POLLUTION PREVENTION REQUIREMENTS ARE NOT BEING MET.

GOVERNMENT FURNISHED MATERIAL

1. THE CONTRACTOR SHALL USE GOVERNMENT FURNISHED MATERIALS FOR AUTHORIZED PURPOSES ONLY.

TUNNELS:

1. IN THE CASE THAT AN UNDERGROUND TUNNEL OR VOID IS DISCOVERED DURING EXCAVATION, THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE COR AND BORDER PATROL. THE CONTRACTOR SHALL THEN TUNNEL AND CONTINUE THE FENCE CONSTRUCTION, REFER TO THE TECHNICAL SPECIFICATIONS 31 00 00 FOR ADDITIONAL INFORMATION.

FOUNDATIONS:

1. FOUNDATIONS SHALL BE CAST ON PROPERLY COMPACTED SOIL. NATIVE SOILS SHALL BE COMPACTED TO AT LEAST 101/01/19 (b) (7)(E) RELATIVE DENSITY AT

2. WHERE NATIVE SOILS DO NOT MEET THE COMPACTION STANDARDS, NATIVE SOILS SHALL BE (b) (7)(E) THE OVER-EXCAVATED AREAS SHALL BE BACK FILLED AND COMPACTED (b) (7)(E) SEE SECTION 31 00 00 EARTHWORK FOR ADDITIONAL INFORMATION. (b) (7)(E)

- 3. THE CONTRACTOR SHALL BE PREPARED TO SHORE AND FORM TRENCH FOOTING WHERE LOOSE SOILS ARE ENCOUNTERED.
- 4. THE CONTRACTOR SHALL BE PREPARED TO SHORE AND FORM TRENCH ABOVE GROUND WHILE KEEPING FOUNDATION (b) (7)(E) BELOW GROUND.

EGRESS/INGRESS ROAD AND STAGING AREAS:

- 1. EGRESS/INGRESS TO THE PROJECT SITE SHALL BE FROM THE EXISTING ROADS SHOWN IN THE PLANS AND AS INDICATED ON THE ACCESS MAPS. THE CONTRACTOR SHALL NOT USE ANY OTHER ROADS FOR ACCESS TO OR ON THE SITE.
- 2. EGRESS/INGRESS AND HAUL ROUTES MAY BE USED BY MORE THAN ONE CONTRACTOR. COOPERATION BETWEEN CONTRACTORS IS EXPECTED AS CONTRACTORS USING THE ROUTES SHALL WORK OUT A ROAD MAINTENANCE SCHEDULE IN ORDER TO KEEP AT ALL TIMES DRIVABLE AND WORKABLE CONDITIONS.
- 3. STAGING AREA FOR THE PROJECT HAS BEEN PROVIDED BY THE GOVERNMENT FOR STORAGE OR STAGING. ANY ADDITIONAL STAGING AREAS REQUIRED BY THE CONTRACTOR SHALL BE APPROVED BY THE COR AND SHALL BE ACQUIRED SOLELY BY THE CONTRACTOR.
- 4. ALL ACCESS ROADS AND STAGING AREA SHALL BE RETURNED TO EQUAL OR BETTER CONDITIONS UPON COMPLETION OF CONSTRUCTION. SEE SECTION 01 00 50 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

EXISTING UTILITIES

- 1. LOCATIONS OF UNDERGROUND UTILITIES ARE FROM BEST INFORMATION AVAILABLE AT THE TIME THESE PLANS WERE PREPARED. THE GOVERNMENT DOES NOT WARRANT THE ACCURACY OF THE INFORMATION PROVIDED. ANY DEVIATION SHALL BE CALLED TO THE ATTENTION OF THE COR PRIOR TO PROCEEDING WITH WORK IN THE AREA OF FOUND UTILITIES.
- 2. APPROXIMATE LOCATIONS OF KNOWN EXISTING UTILITIES ARE SHOWN. CONTRACTOR SHALL DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATIONS IN THE FIELD PRIOR TO COMMENCING WORK. CONTRACTOR TO BE FULLY RESPONSIBLE FOR DAMAGES WHICH MIGHT OCCUR BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE EXISTING UTILITIES AND/OR STRUCTURES.
- 3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE ALL UTILITIES LOCATED AND MARKED PRIOR TO START OF CONSTRUCTION ANY FOUND UTILITIES NOT STATED ABOVE SHALL BE BROUGHT TO THE ATTENTION OF THE COR FOR DIRECTION, PRIOR TO PROCEEDING WITH CONSTRUCTION IN THE AREA OF SAID UTILITIES.
- 4. PUBLIC AND PRIVATE UTILITY LINES AND CUSTOMER SERVICE LINES MAY EXIST THAT ARE NOT SHOWN ON THE CONSTRUCTION DRAWINGS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE, MAINTAIN AND PROTECT THE INTEGRITY OF THESE LINES. HAND EXCAVATION MAY BE REQUIRED.
- 5. CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY TO RELOCATE OR DIVERT ANY UTILITY IN CONFLICT WITH PROPOSED CONSTRUCTION SO AS NOT TO DISRUPT SERVICE OF IT. CONTRACTOR SHALL RESTORE, RELOCATE OR DIVERT UTILITY TO ITS ORIGINAL CONDITION AND LOCATION WHEN APPLICABLE UPON COMPLETION OF CONSTRUCTION.
- 6. CONTRACTOR SHALL VERIFY ALL EXISTING GUY WIRES SOUTH OF THE EXISTING LEGACY FENCE ARE LOCATED IN MEXICO. PROTECT GROUND ANCHORS IN PLACE IF LOCATED IN THE USA.
- 7. COORDINATE WITH IMPERIAL IRRIGATION DISTRICT RESIDENTIAL SERVICES (760) 335-3640.
- 8. COORDINATE WITH MEXICAN CUSTOMS OFFICIAL FOR ITEMS RELATING TO CONFLICTS WITHIN THEIR PROPERTY LIMITS SUCH AS EXISTING FENCING THAT EXTENDS INTO THE USA THAT REQUIRES REMOVAL AND OVERHEAD ELECTRICAL LINES NEAR THE BORDER THAT REQUIRE THE POWER TO BE SHUTOFF.
- 9. CONTRACTOR SHALL LOCATE EXACT LOCATION OF WATER LINE AND SHALL COORDINATE WITH WATER COMPANY AND COR TO LOWER, RELOCATE, OR PROTECT IN PLACE IF IT IS WITHIN OUR CONSTRUCTION LIMITS.
- 10. EXISTING LIGHT POLES AND UNDERGROUND WIRING AND ASSOCIATED ELECTRICAL ACCESSORIES ARE LOCATED (b) (7)(E) THROUGHOUT THE LENGTH OF THE PROJECT. THE CONTRACTOR SHALL BE PREPARED TO PROTECT ALL LIGHT POLES, WIRING AND ELECTRICAL ACCESSORIES IN-PLACE DURING CONSTRUCTION OF THE PROJECT. WHERE THIS MAY NOT BE POSSIBLE. SUCH AS WITHIN CONSTRUCTION ZONES FOR THE DRAINAGE CROSSINGS, THE CONTRACTOR SHALL BE PREPARED TO RELOCATE PREVIOUSLY SAID ITEMS IN ORDER TO COMPLETE THE CONSTRUCTION AS SHOWN IN THE PROJECT PLANS. AS-BUILT PLANS OF THE LIGHTING SYSTEM ARE NOT AVAILABLE. BASED ON FIELD OBSERVATIONS AT A FEW RANDOM FIELD LOCATIONS, THE WIRING MOST LIKELY THE CABLING IS TYPICALLY LOCATED (b) (7)(E) (b) (7)(E) WITH THE KNOWN EXCEPTION AT (b) (7)(E) AT THESE LOCATIONS THE CABLE IS LOCATED
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATION OF ALL LIGHT POLES, WIRING AND ELECTRICAL ACCESSORIES PRIOR TO RELOCATING OR ORDERING ANY LIGHTING MATERIAL. THE CONTRACTOR SHALL COORDINATE WITH BORDER PATROL THROUGHOUT THE PROCESS.

REINFORCING STEEL

- 1. ALL REINFORCING STEEL SHALL CONFORM TO (b) (7)(E) UNLESS OTHERWISE SHOWN. (b) (7)(E) (b) (7)(E) PLACEMENT AND DETAILING OF CONCRETE REINFORCEMENT AND ACCESSORIES SHALL BE IN ACCORDANCE WITH (b) (7)(E) RESPECTIVELY (LATEST EDITIONS).
- 2. ALL REBAR SHALL HAVE A MINIMUM COVER OF (b) (7)(E)UNLESS NOTED OTHERWISE.
- 3. ALL HORIZONTAL AND VERTICAL REINFORCING STEEL SHALL BE CONTINUOUS ACROSS CONSTRUCTION JOINTS.
- 4. CONSTRUCTION JOINTS NOT INDICATED ON THE DRAWINGS SHALL BE MADE AND LOCATED AS NOT TO IMPAIR SIGNIFICANTLY THE STRENGTH OF THE STRUCTURE. CONTRACTOR SHALL SUBMIT LOCATION OF PROPOSED JOINTS IN THE SLABS AND WALLS TO ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

SEDIMENT CONTROL:

1. CONTRACTOR SHALL PROVIDE AND MAINTAIN SEDIMENT CONTROL SERVICES IN ACCORDANCE WITH THE CONTRACT DOCUMENT THROUGHOUT THE TERM OF THE WORK COVERED BY THIS CONTRACT. SEE SPECIFICATIONS SECTION 01 57 20.00 10 **ENVIRONMENTAL PROTECTION.**

ENGINEERED FILL:

1. ENGINEERED FILL REQUIRED TO BRING THE SITE TO GRADE SHALL BE FREE OF VEGETATION AND DEBRIS, AND (b) (7)(E) (b) (7)(E) . ENGINEERED FILL SHALL MEET THE FOLLOWING GRADATION REQUIREMENTS WHEN TESTED IN ACCORDANCE WITH (b) (7)(E)

SCREEN SIZE (SQUARE OPENING)	PERCENT PASSING BY WEIGHT
(b) (7)(E)	(b) (7)(E)

THE SOILS SHALL POSSESS A PLASTICITY INDEX OF (b) (7)(E) AND A LIQUID LIMIT (b) (7)(E) WHEN TESTED IN ACCORDANCE WITH (b) (7)(E)

(b) (7)(E)

2. ENGINEERED FILL SHALL BE

, AND COMPACTED BY MECHANICAL MEANS ONLY, TO AT LEAST (6)(7)(E) OF THE MAXIMUM DRY DENSITY, OPTIMUM MOISTURE CONTENT AND MAXIMUM DENSITY SHALL BE DETERMINED IN ACCORDANCE WITH (b) (7)(E)

3. EXCAVATED ON-SITE SOILS MEETING THE ABOVE REQUIREMENT MAY BE REUSED FOR ENGINEERED FILL. IMPORTED MATERIALS SHALL MEET THE PREVIOUSLY PRESENTED REQUIREMENTS FOR ENGINEERED FILL AND SHALL BE INSPECTED AND TESTED AT THE SOURCE PRIOR TO IMPORTATION TO THE SITE.

4. FILL PLACED ON EXISTING ENGINEERED FILL OR NATURAL SLOPES STEEPER THAN(b) (7)(E); HALL BE KEYED AND BENCHED INTO THE EXISTING SLOPE. THE BENCHES SHALL BE WIDE ENOUGH TO ACCOMODATE COMPACTION EQUIPMENT AND THE LOWEST BENCH SHALL BE THE WIDEST AT A MINIMUM OF (b) (7)(E) FEET WIDE. BENCH HEIGHTS SHALL BE A MAXIMUM OF (b) (7)(E) BENCH WIDTHS AT THE TOP SHALL BE MINIMUM OF (b) (7)(E)

> THIS SHEET IS APPLICABLE TO DRAINAGE CROSSING AREAS ONLY. OTHER LOCATIONS TO BE DESIGNED BY OTHERS PER TI STANDARDS. REFER TO "CG" SERIES SHEETS FOR LIMITS OF DRAINAGE CROSSINGS.





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SHEET **IDENTIFICATION** GI102 SHEET 3 OF 29

1. DUE TO VARIABILITY OF SITE SOILS, ISOLATED AREAS OF THE SUBGRADE MAY REQUIRE OVER-EXCAVATION AND RECOMPACTION TO MITIGATE LOOSE OR DISTURBED SOIL CONDITIONS. SUBGRADE FOR THE ENTIRE BORDER ROAD SHALL BE PROOF-ROLLED WITH A LOADED 10,000-GALLON WATER TRUCK FOLLOWING CLEARING, GRUBBING, AND SITE GRADING. AREAS OBSERVED TO DEFLECT UNDER THE PRESSURE EXERTED BY THE 10,000-GALLON WATER TRUCK WILL REQUIRE OVER-EXCAVATION AND REPLACEMENT WITH ENGINEERED FILL.

2. FOR CUT AREAS, CUT PROPOSED ROAD TO GRADE, SCARIFY TOP EIGHT (8) INCHES OF SUBGRADE AND MOISTURE CONDITION. FOR FILL AREAS, SCARIFY TOP SIX (6) INCHES OF EXISTING GRADE AND MOISTURE CONDITION.

3. COMPACT SUBGRADE FOR CUT AREAS TO (b) (7)(E) OF OPTIMUM MOISTURE CONTENT. FILL MATERIAL SHALL BE COMPACT AND TESTED IN SIX (6) INCH MAXIMUM LIFTS AND SHALL CARRY SIMILAR SOIL PROPERTIES AS SHOWN ON BORING LOGS. COMPACTION OF FILL MATERIAL IN SUBGRADE SHALL BE TO (b) (7)(E) OF OPTIMUM MOISTURE CONTENT.

1. AGGREGATE COURSE SHALL BE USED DIRECTLY ABOVE THE MOISTURE CONDITIONED AND COMPACTED SUBGRADE. AGGREGATE COURSE SHALL BE LAID OUT IN A SINGLE LIFT AND (b) (7)(E) OF OPTIMUM MOISTURE CONTENT. ALL AGGREGATE SURFACE COURSE SHALL HAVE A PI AND GRADATION AS SPECIFIED IN THE GEOTECHNICAL REPORT:

US Army Corps of Engineers® Fort Worth District

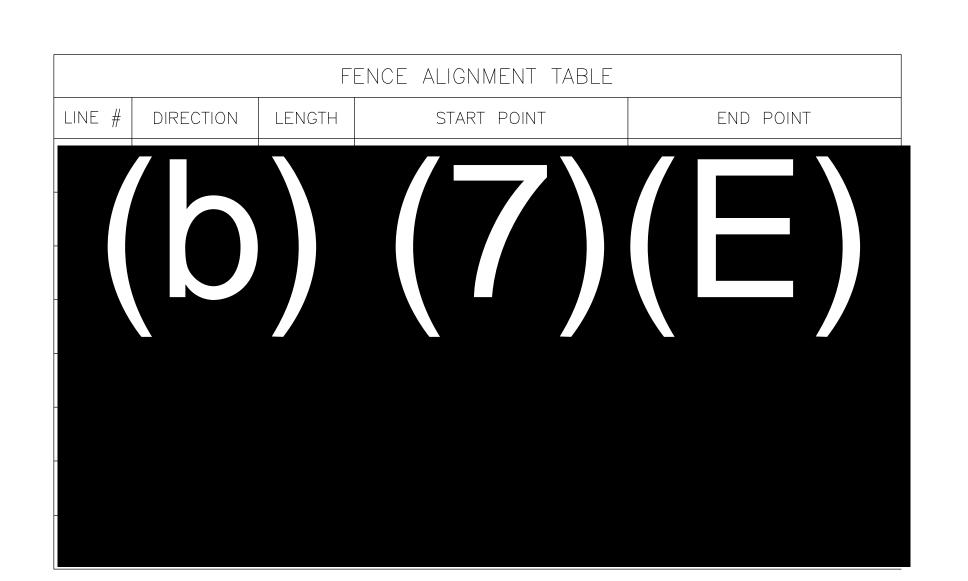
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SHEET IDENTIFICATION GI103 SHEET 4 OF 29

THIS SHEET IS APPLICABLE TO DRAINAGE CROSSING AREAS ONLY. OTHER LOCATIONS TO BE DESIGNED BY OTHERS PER TI STANDARDS. REFER TO "CG" SERIES SHEETS FOR LIMITS OF DRAINAGE CROSSINGS.

4. SITE GRADING PERFORMED DURING OR SUBSEQUENT TO WET WEATHER MAY RESULT IN NEAR-SURFACE SITE SOILS WITH MOISTURE CONTENTS SIGNIFICANTLY ABOVE OPTIMUM. THIS CONDITION COULD HAMPER EQUIPMENT MANEUVERABILITY AND EFFORTS TO COMPACT SITE SOILS TO THE RECOMMENDED COMPACTION CRITERIA. DURING MOST OF THE YEAR, THE SITE WILL TYPICALLY DRY TO WORKABLE MOISTURE CONTENTS WITHIN ONE TO TWO DAYS. IF TIME IS A CRITICAL FACTOR, DISKING FOR AERATION, CHEMICAL TREATMENT, REPLACEMENT WITH DRIER MATERIAL, STABILIZATION WITH A GEOTEXTILE FABRIC OR GRID, OR OTHER METHODS MAY BE IMPLEMENTED TO REDUCE EXCESSIVE SOIL MOISTURE AND FACILITATE EARTHWORK OPERATIONS.

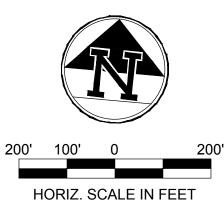
AGGREGATE BASE COURSE AND GRAVEL SURFACING:





(b) (7)(E)

(b) (7)(E)



HORIZONTAL AND VERTICAL CONTROL:

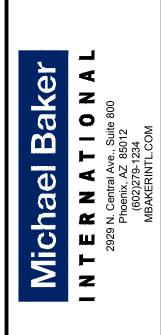
THIS PROJECT WAS MAPPED AND LAID OUT USING THE FOLLOWING DATUMS:

HORIZONTAL: CALIFORNIA STATE PLANE (b) (7)(E) COORDINATES SYSTEM (SPCS)
NORTH AMERICAN DATUM OF 1983 (NAD83)
VERTICAL: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RE—SETTING ANY BENCHMARKS FOUND WITHIN THE CONSTRUCTION FOOT PRINT. THIS WORK SHALL BE DONE UNDER THE DIRECTION OF A PROFESSIONAL LAND SURVEYOR AND THE INFORMATION SHALL BE PROVIDED TO THE GOVERNMENT FOR THEIR RECORDS.

POINT	SPC-CA-(b) (7)(E) NORTHING INTERNATIONAL FT.	SPC-CA- <mark>(b) (7)(E)</mark> EASTING INTERNATIONAL FT.	NAD83 LATITUDE	NAD83 LONGITUDE
		b) (7)(E		





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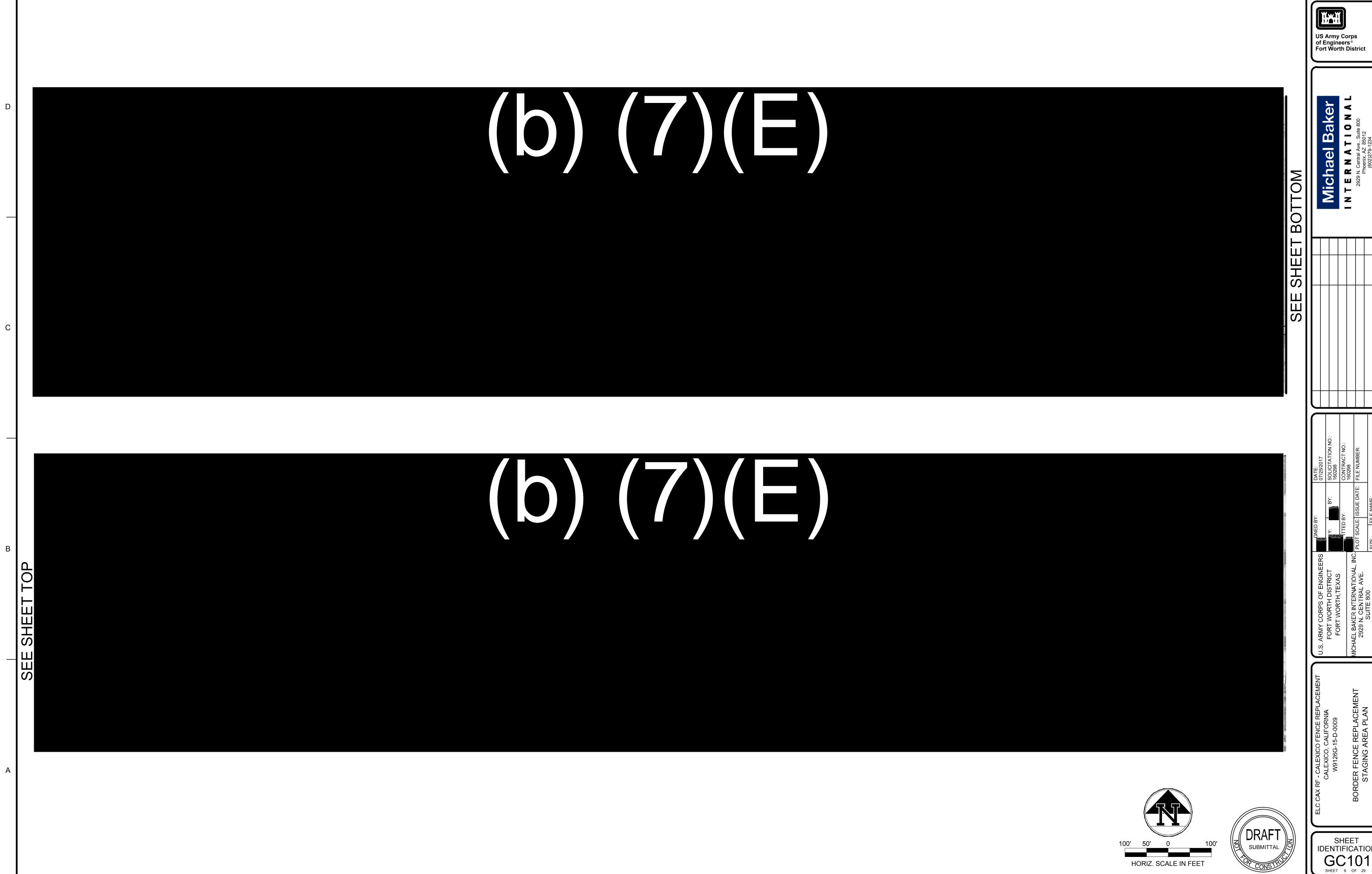
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U.S. ARMY CORPS OF ENGINEER
FORT WORTH DISTRICT
FORT WORTH, TEXAS
FORT WORTH, TEXAS
AT

MICHAEL BAKER INTERNATIONAL, IN
2929 N. CENTRAL AVE.
SUITE 800

ELC CAX RF - CALEXICO FENCE REPLACEMENT
CALEXICO, CALIFORNIA
W9126G-15-D-0009
BORDER FENCE REPLACEMENT
GEOMETRIC DATA AND KEY MAP

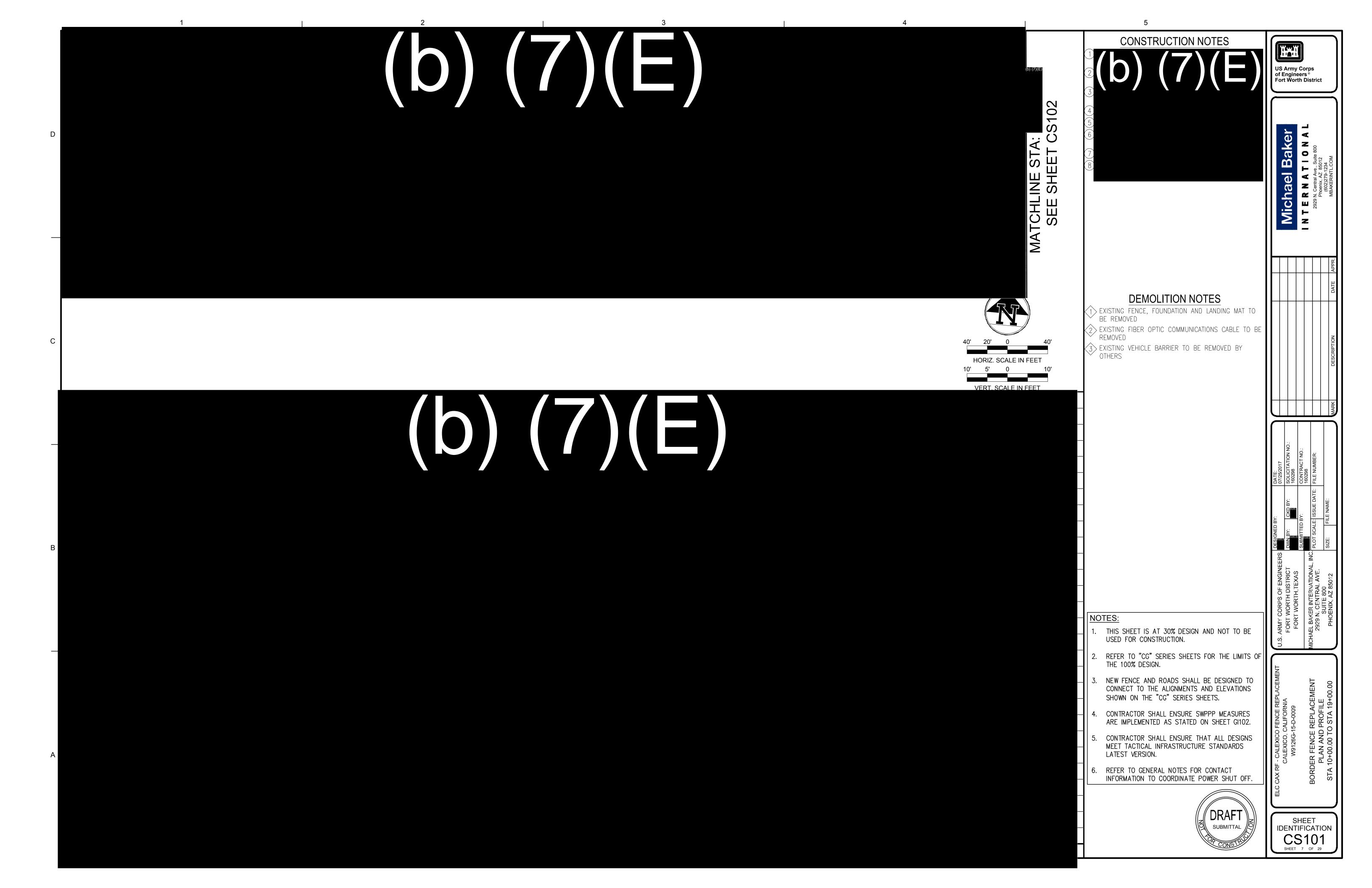


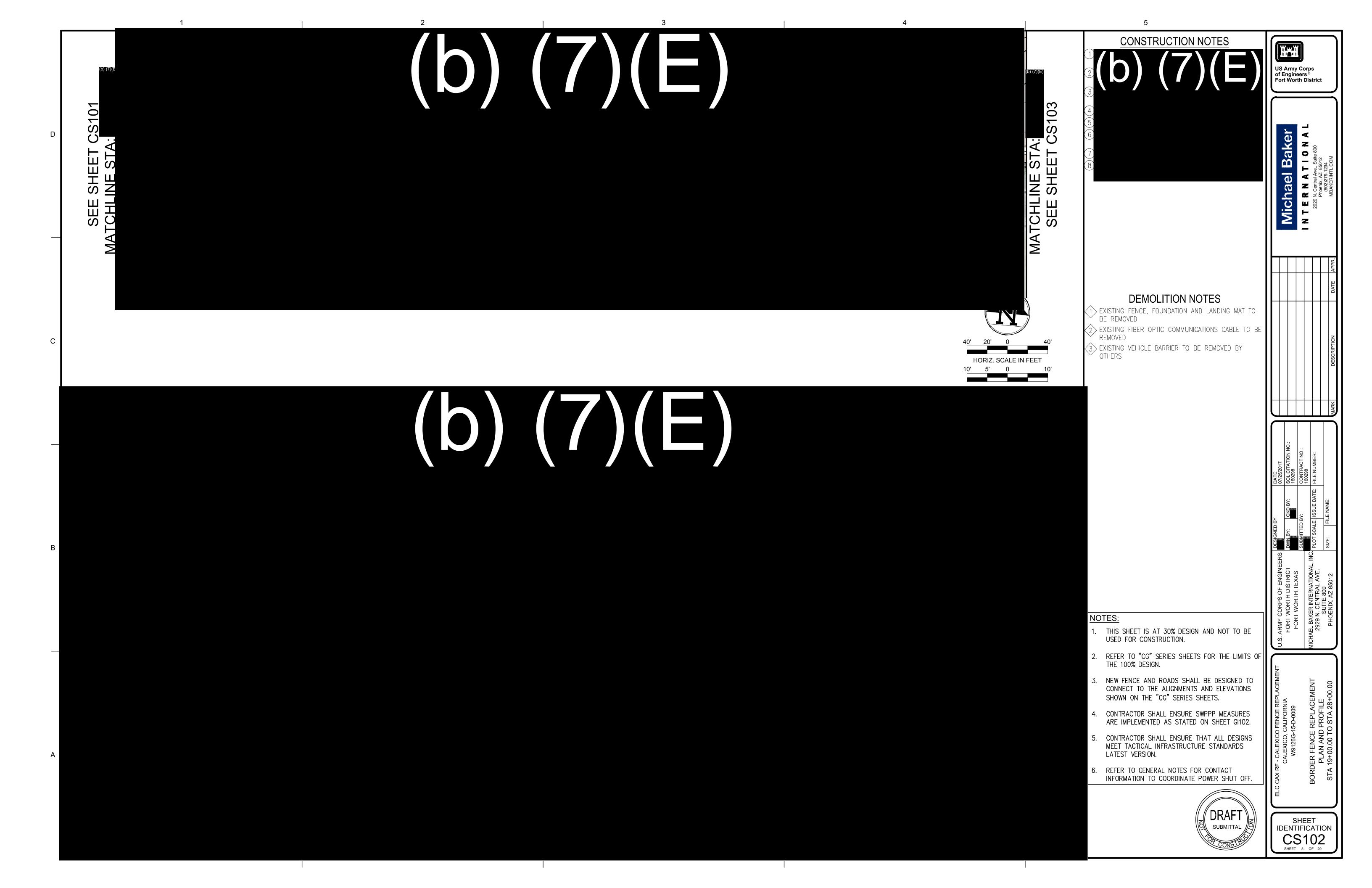


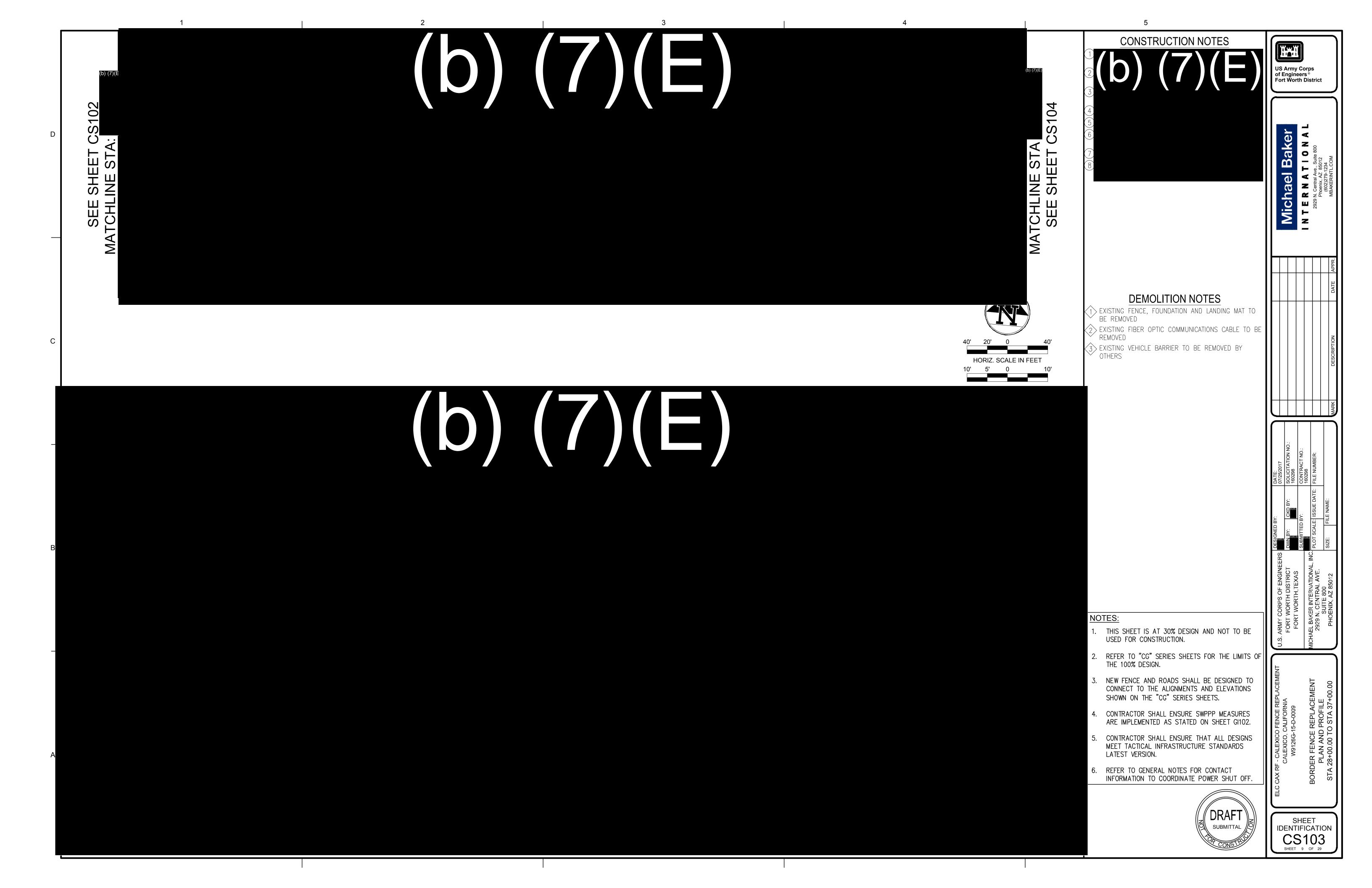
US Army Corps of Engineers® Fort Worth District

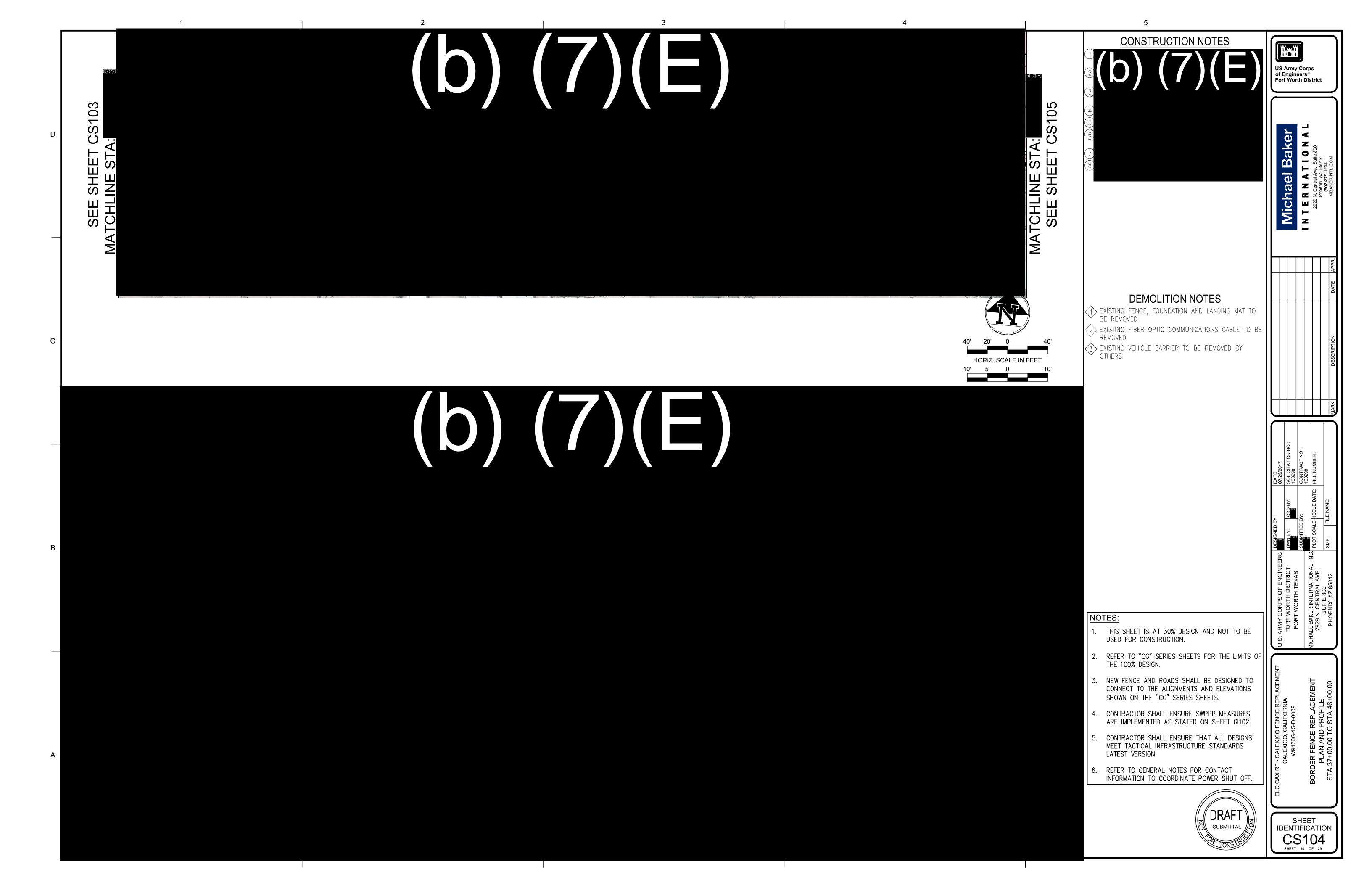
DER FENCE REPLACEMENT STAGING AREA PLAN

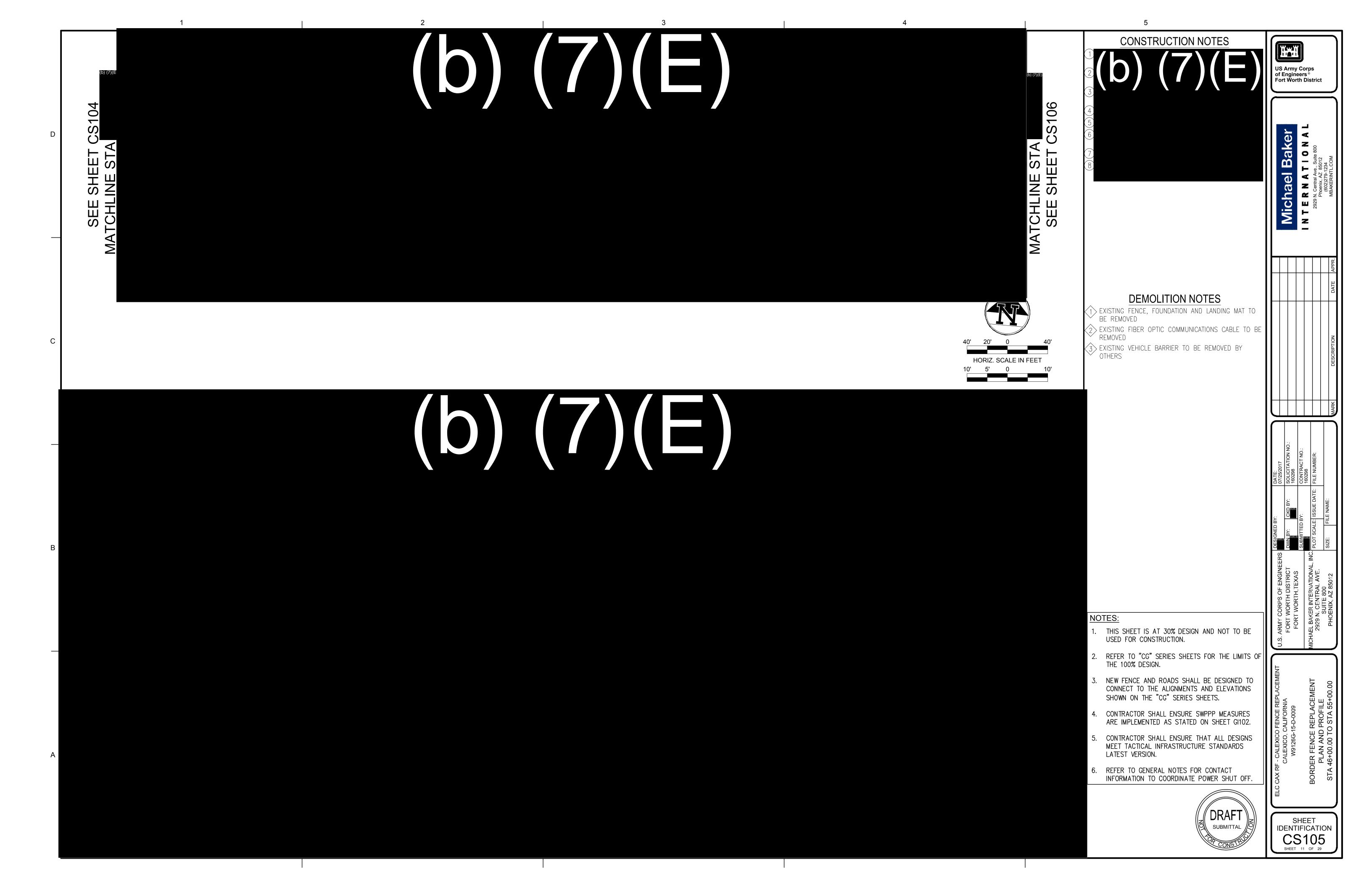
SHEET IDENTIFICATION GC101

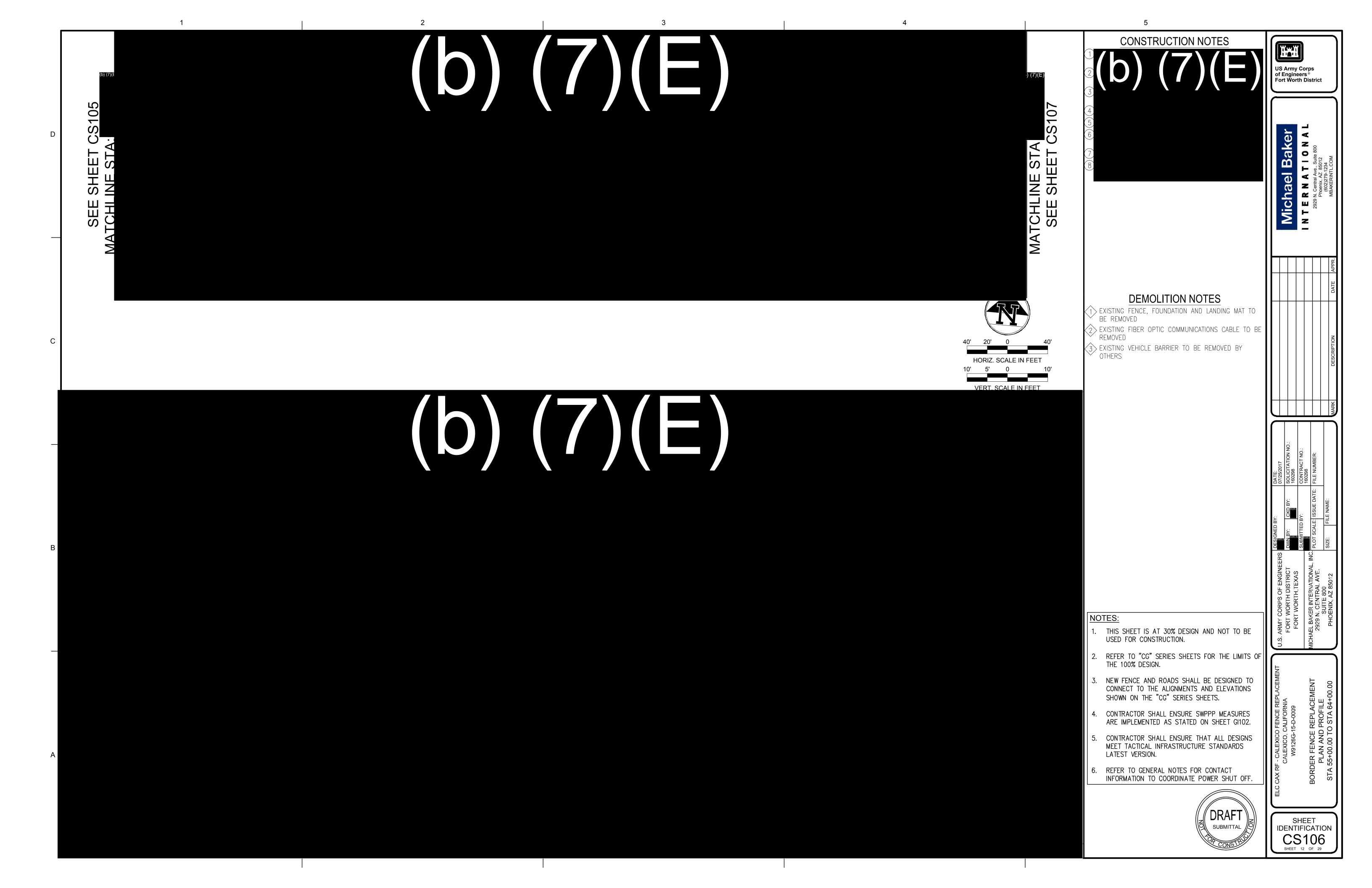


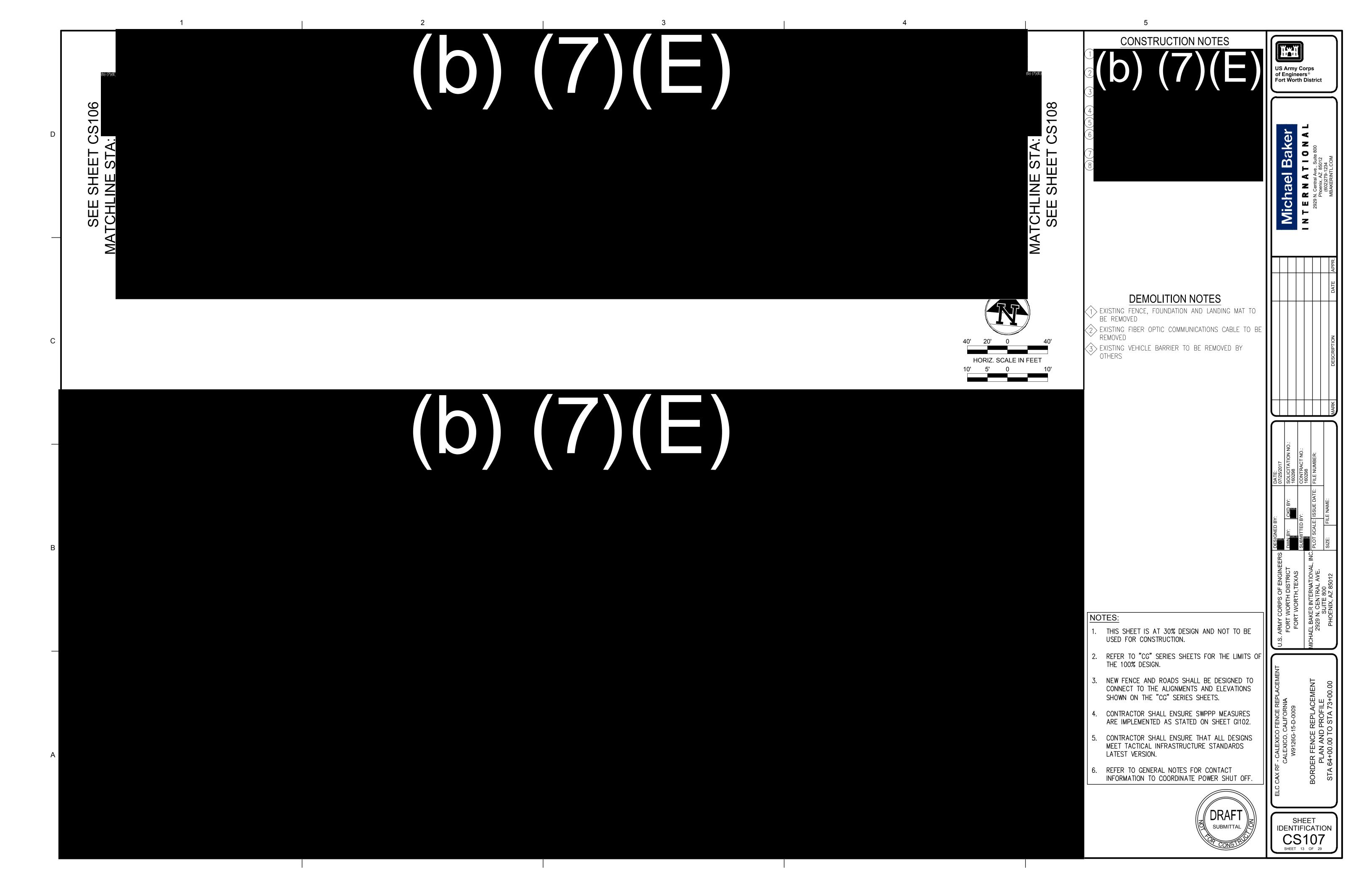


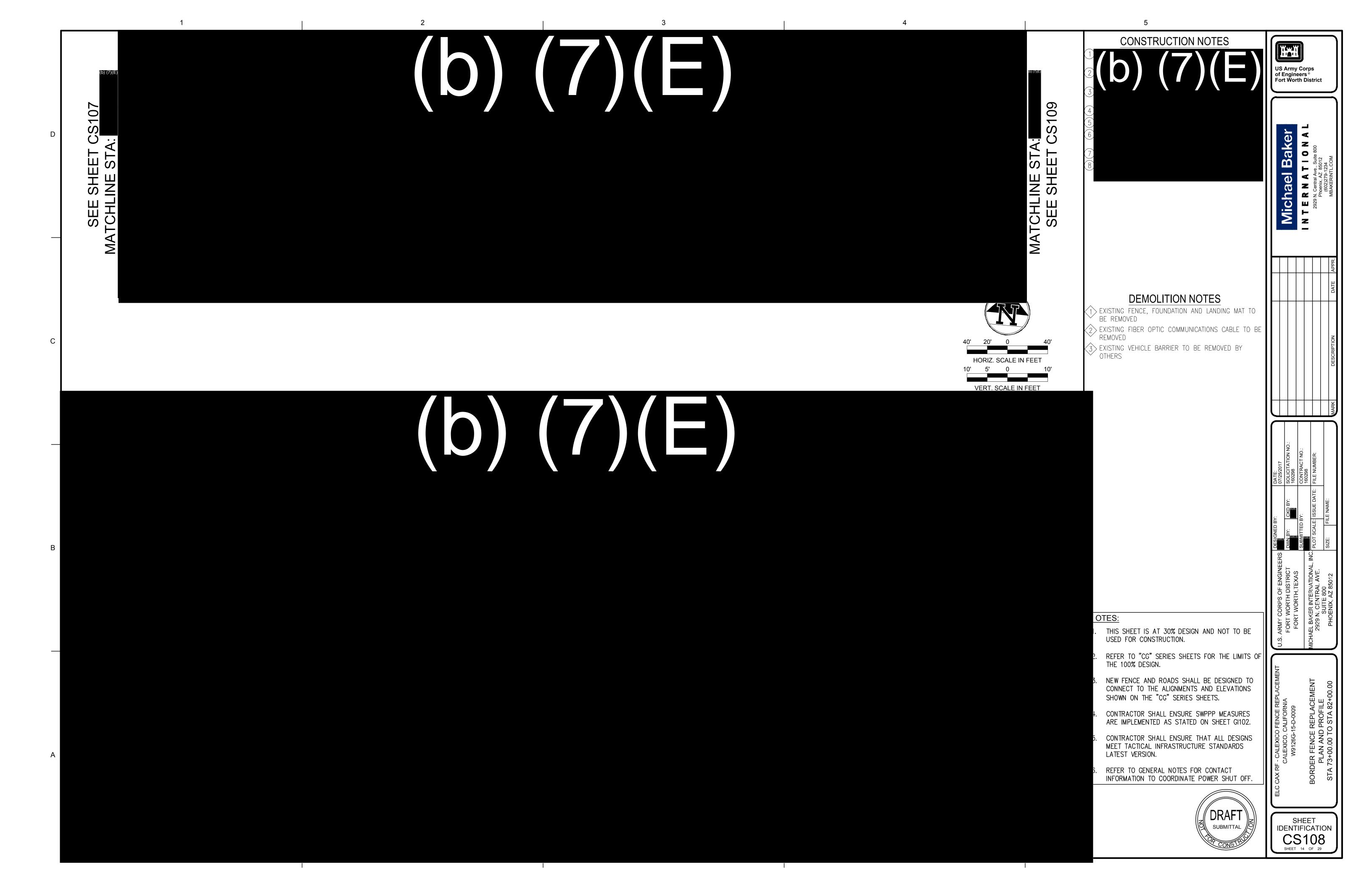


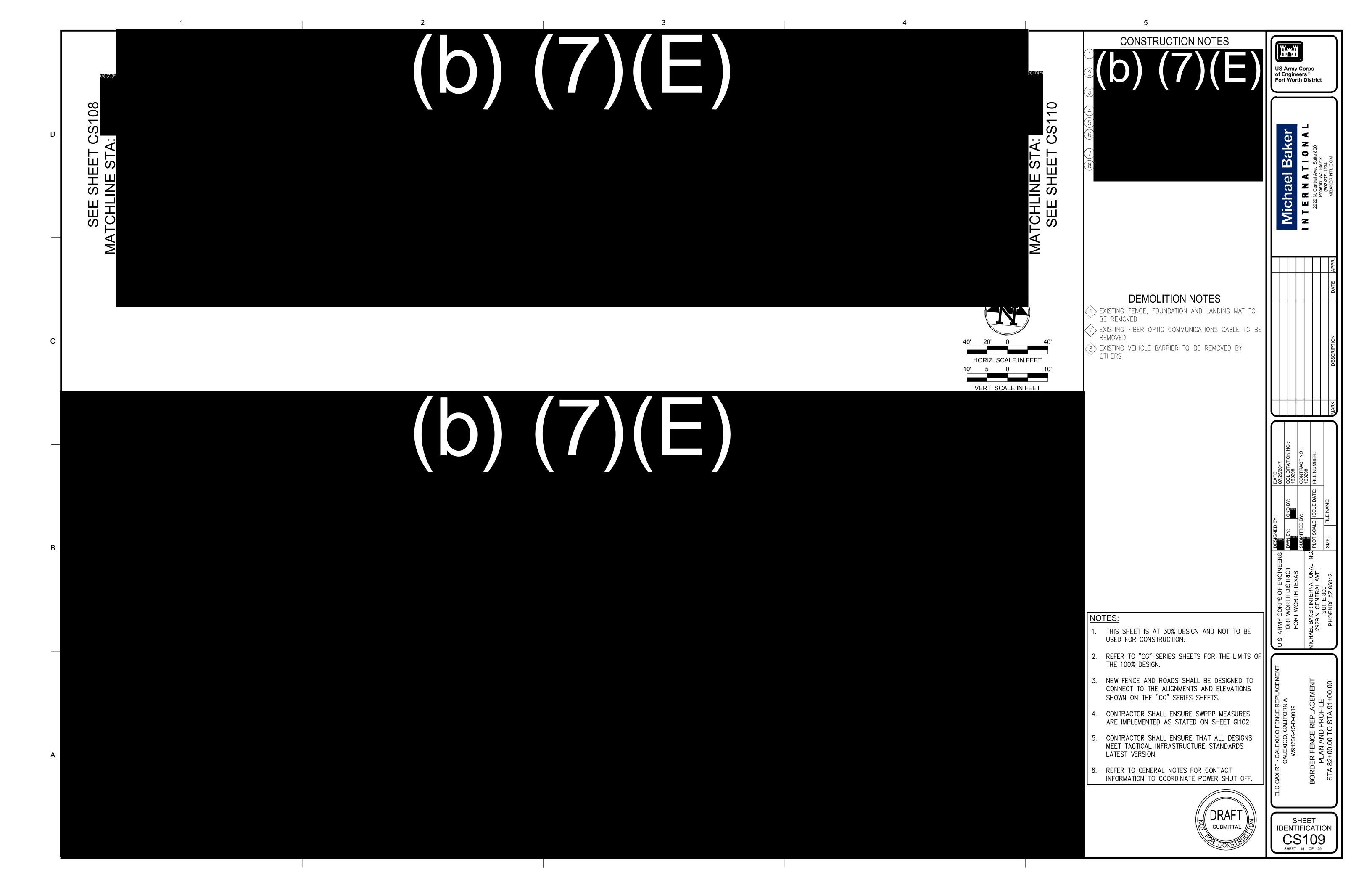


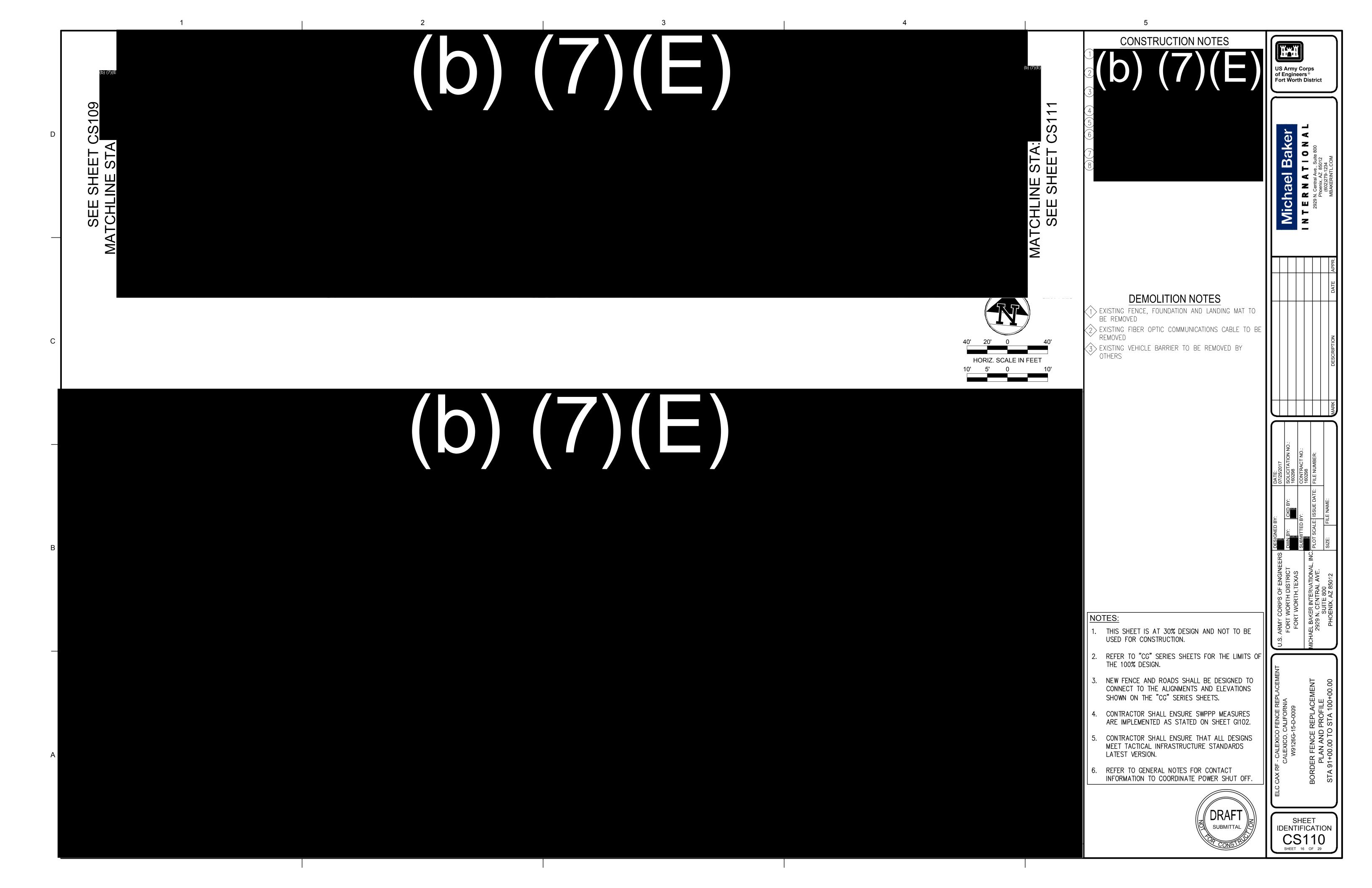


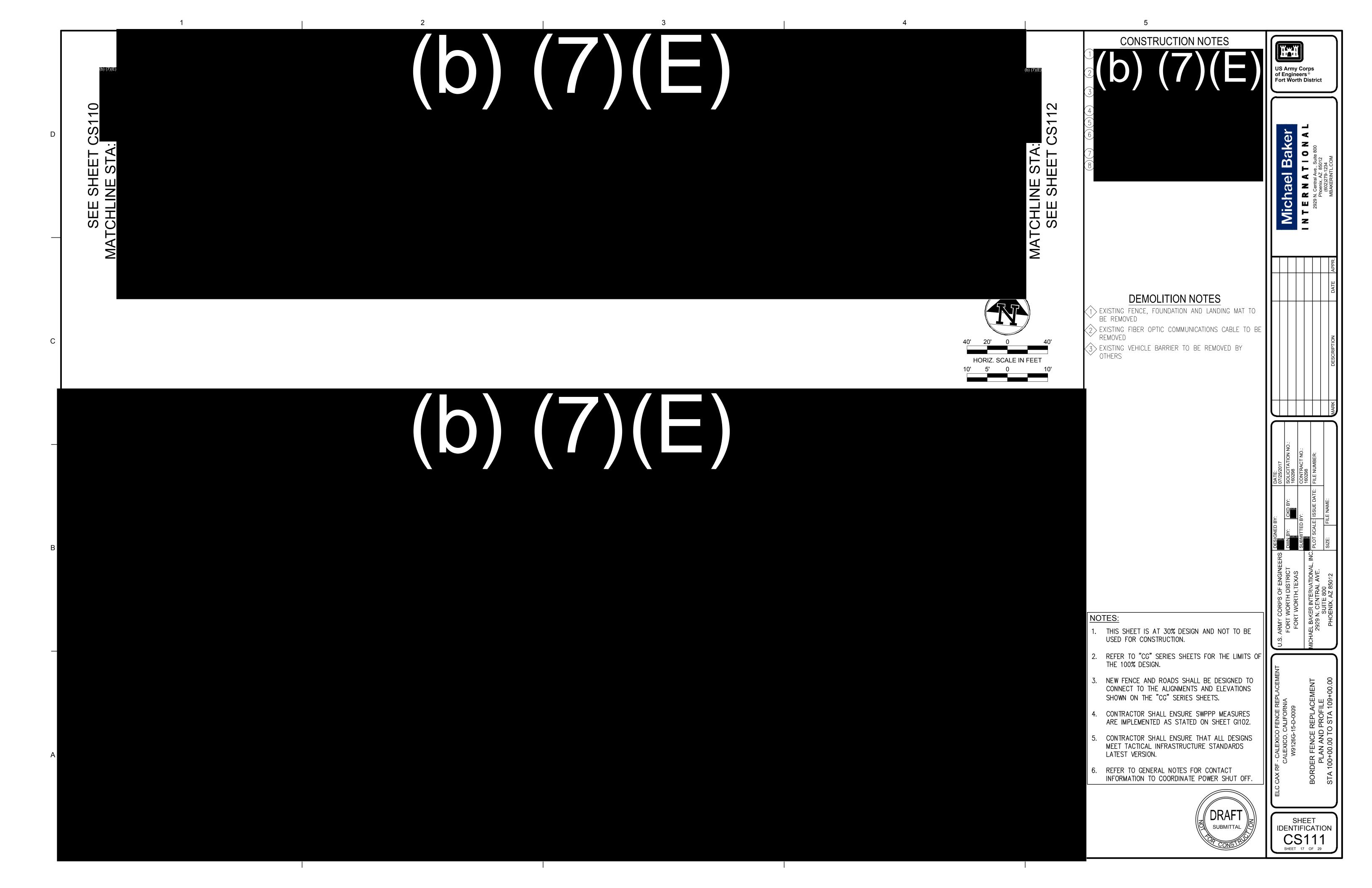


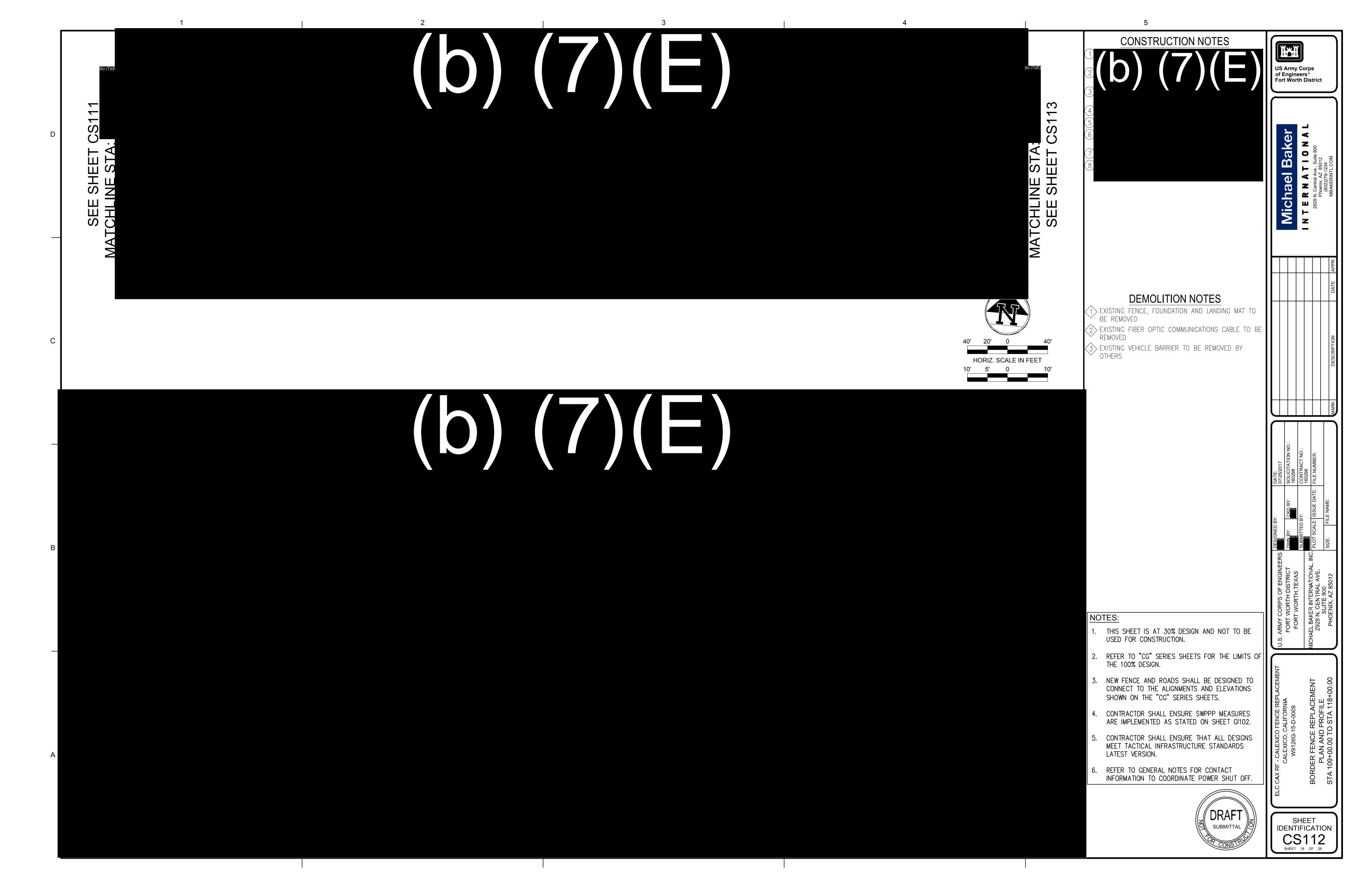


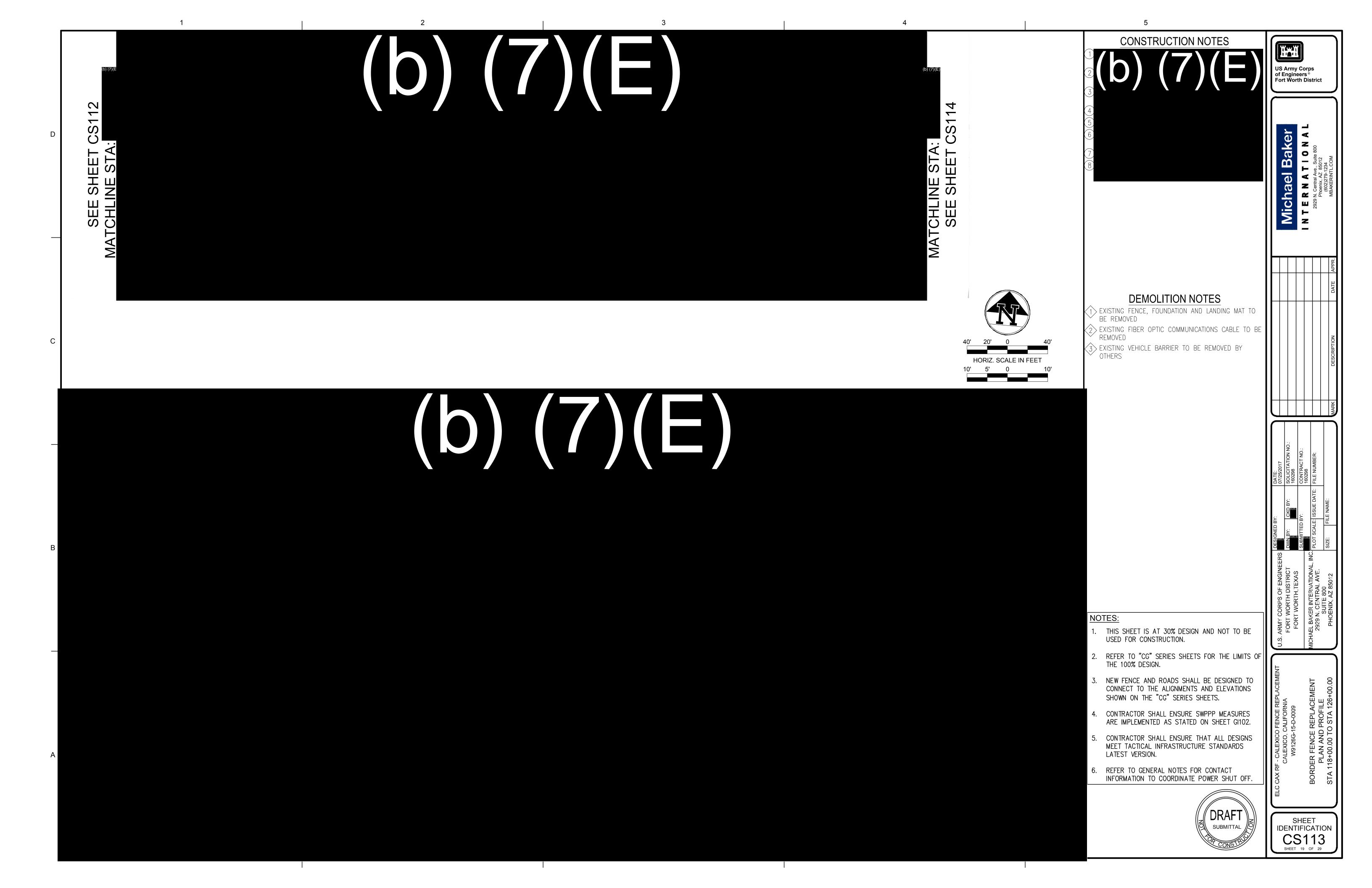


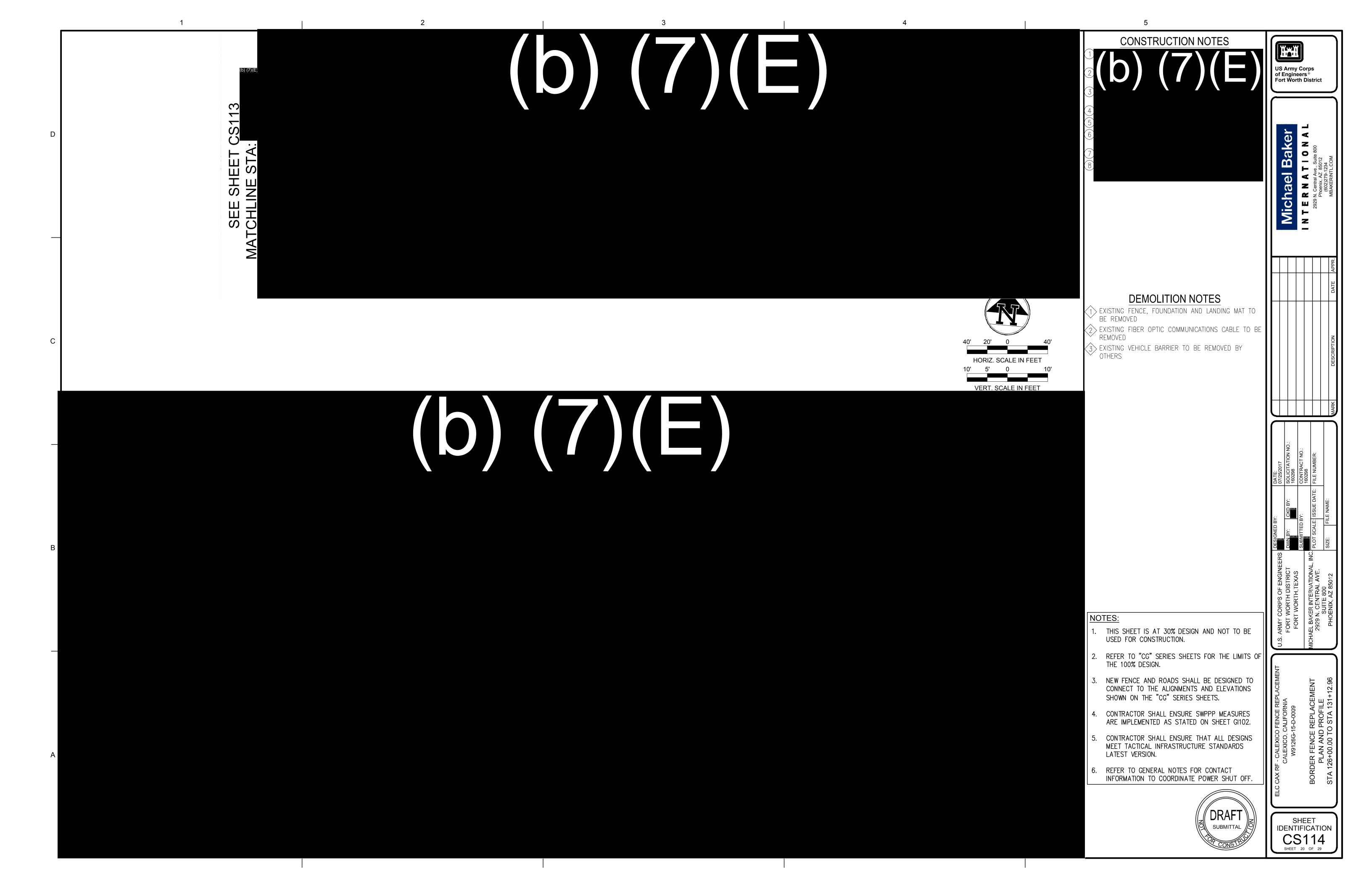


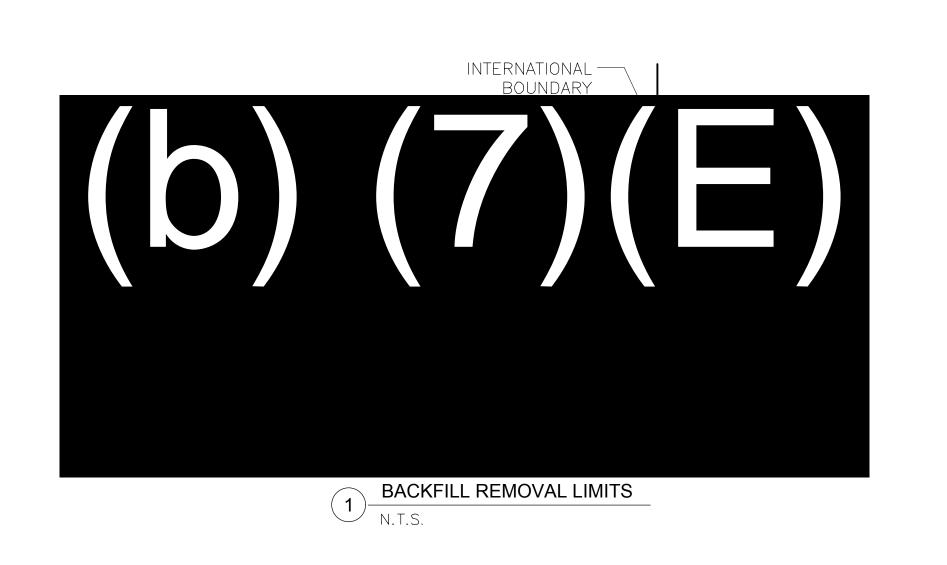


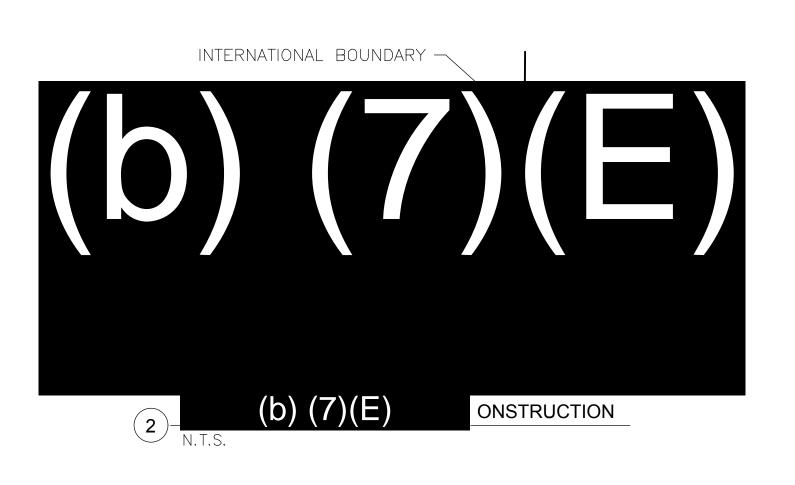


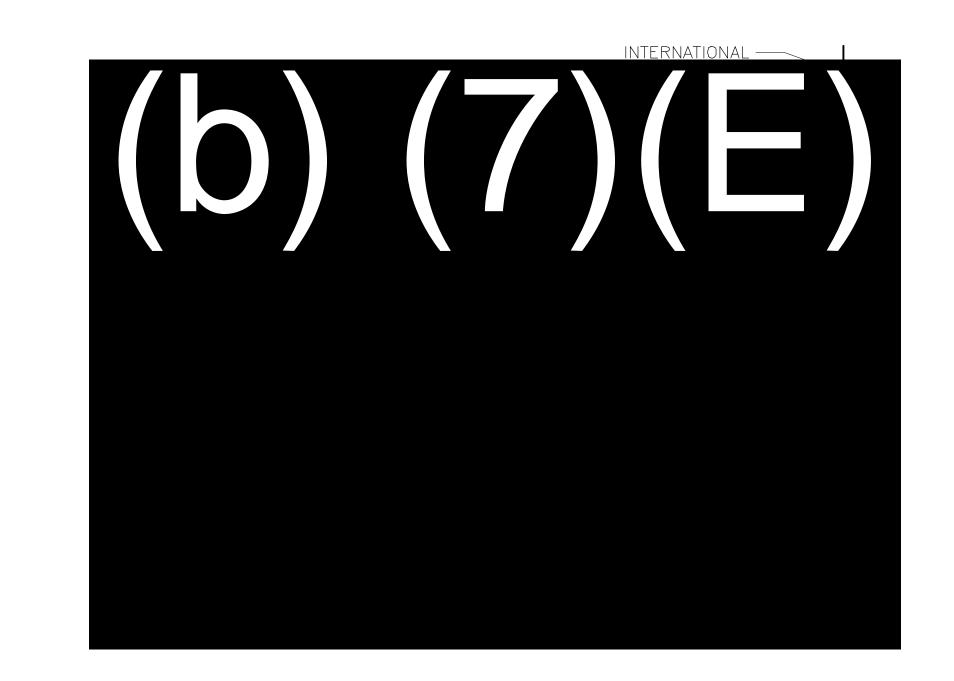


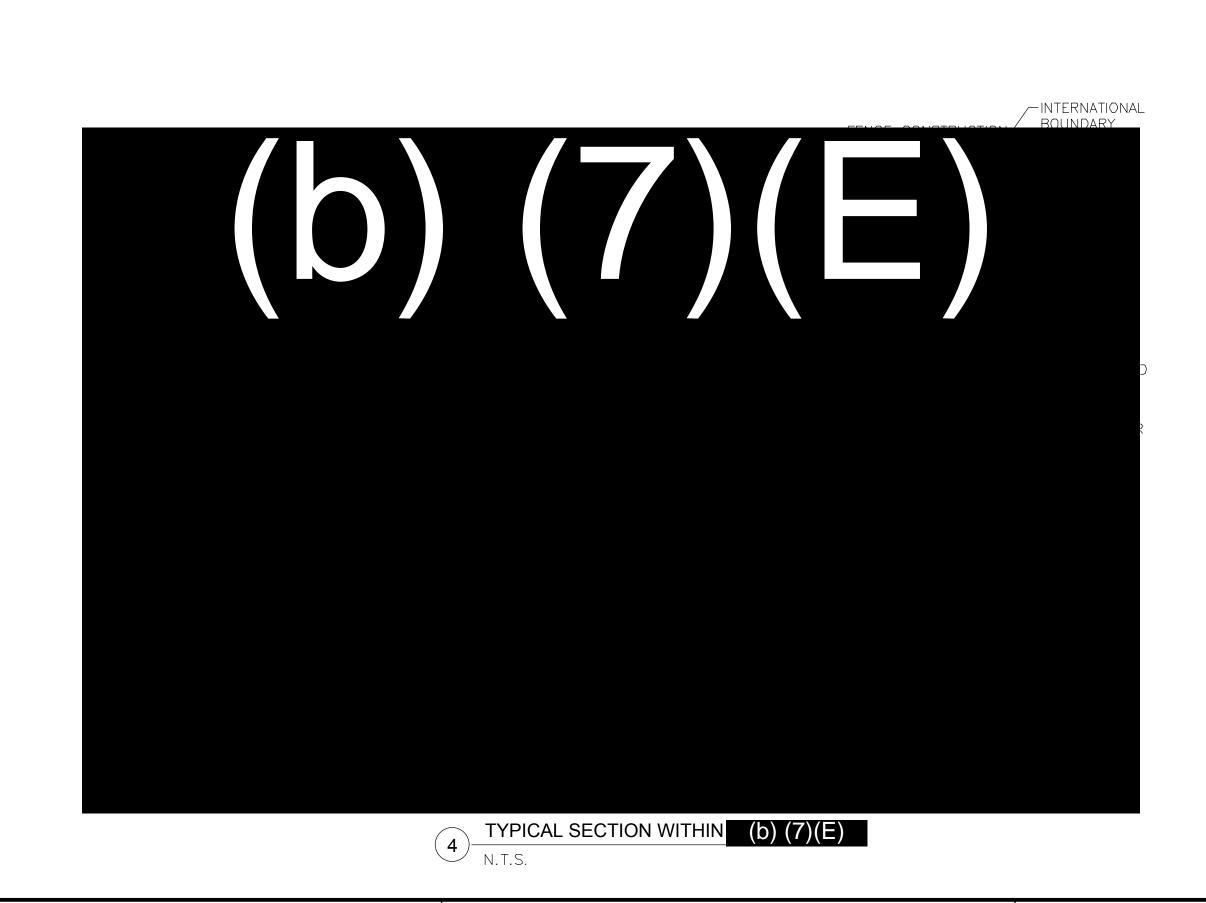


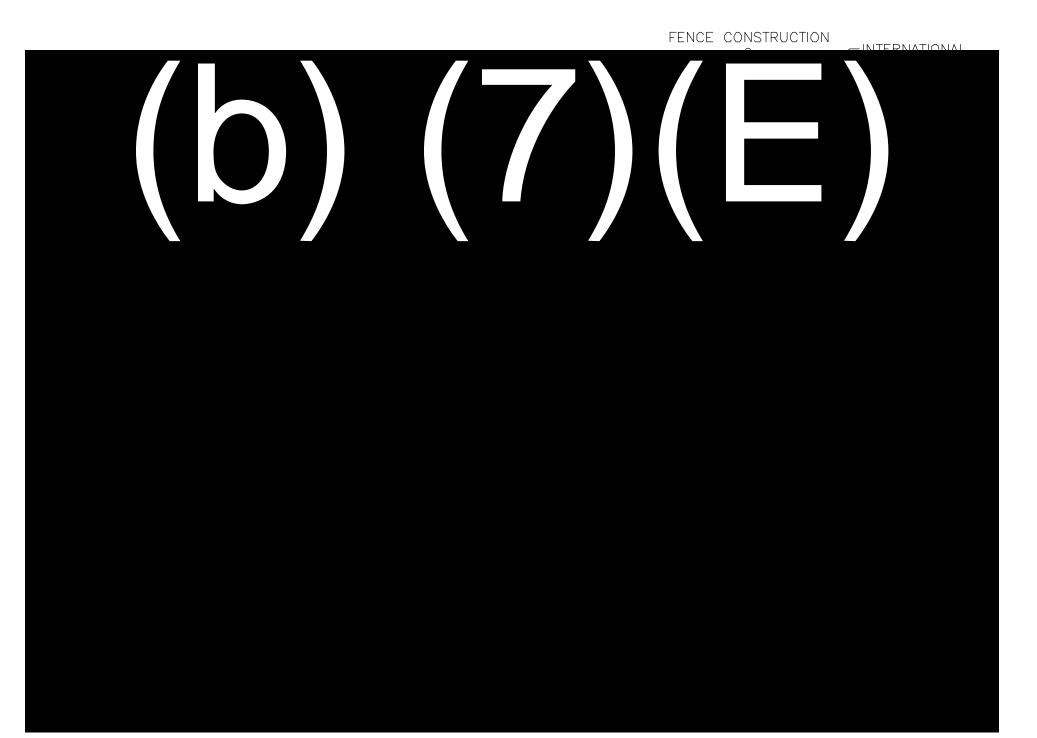












5 TYPICAL SECTION WITHIN (b) (7)(E)





Michael Baker
INTERNATIONAL
2929 N. Central Ave., Suite 800
Phoenix, AZ 85012
(602)Z79-1234

MARK DESCRIPTION DATE APPR.

 S OF ENGINEERS
 DESIGNED BY:
 DATE:

 TH DISTRICT
 DWN BY:
 CKD BY:
 SOLICITATION NI 160298

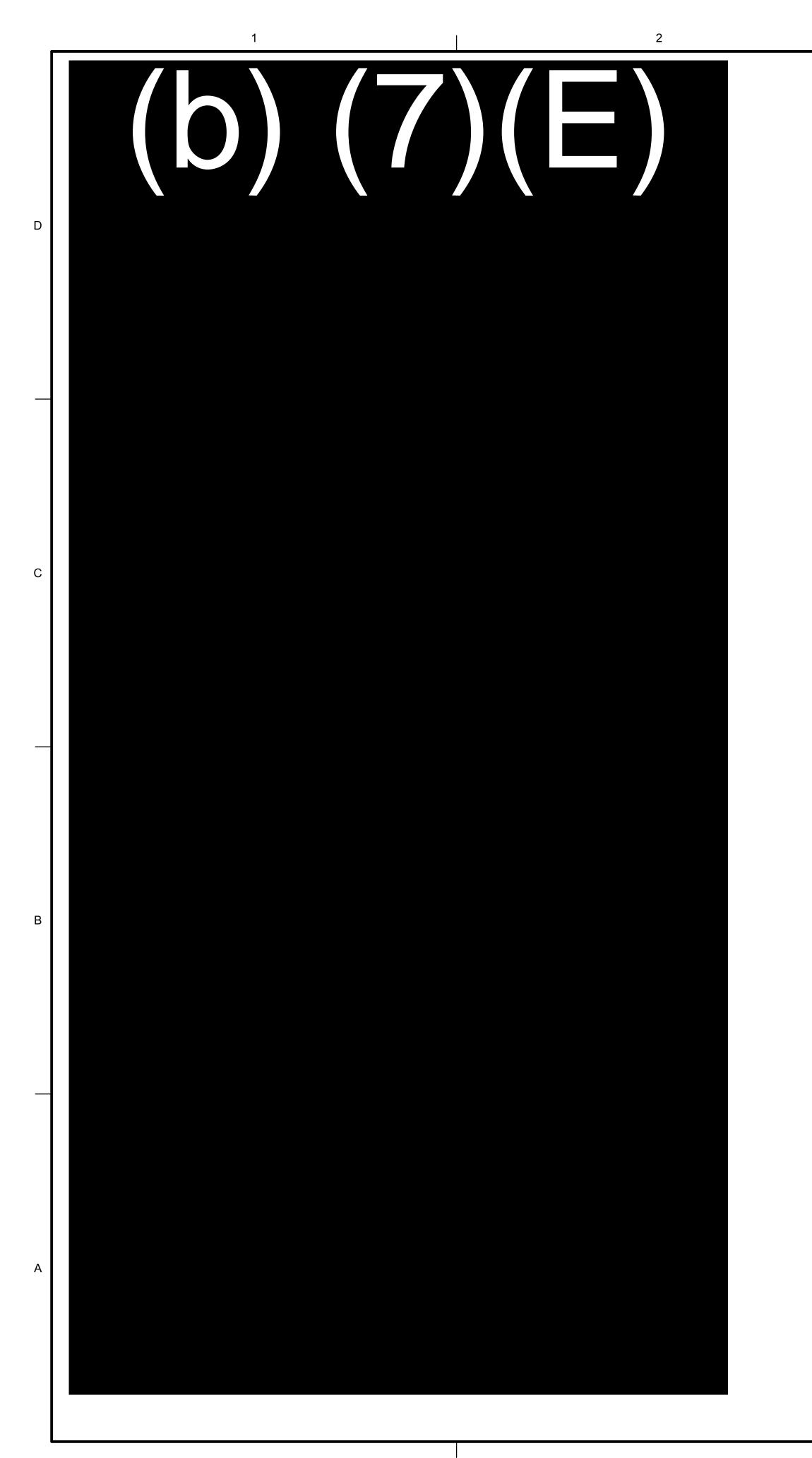
 TERNATIONAL, INC.
 PLOT SCALE:
 ISSUE DATE:
 FILE NUMBER:

 E 800
 SIZE:
 FILE NAME:

U.S. ARMY CORPS OF ENGINEERS
FORT WORTH DISTRICT
FORT WORTH, TEXAS
S
MICHAEL BAKER INTERNATIONAL, INC.
2929 N. CENTRAL AVE.
SUITE 800

ELC CAX RF - CALEXICO FENCE REPLACEMEN'
CALEXICO, CALIFORNIA
W9126G-15-D-0009
BORDER FENCE REPLACEMENT
DETAILS AND SPECIFICATIONS

SHEET IDENTIFICATION CS501





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Michael Bak		2929 N. Central Ave., Suite 800	Phoenix, AZ 85012	(602)279-1234	MBAKERINTL.COM
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				TLVU

ELC CAX RF - CALEXICO FENCE REPLACEMENT CALEXICO, CALIFORNIA W9126G-15-D-0009 BORDER FENCE REPLACEMENT DETAILS AND SPECIFICATIONS



ELEVATION - GROUND SLOPE
(b) (7)(E)

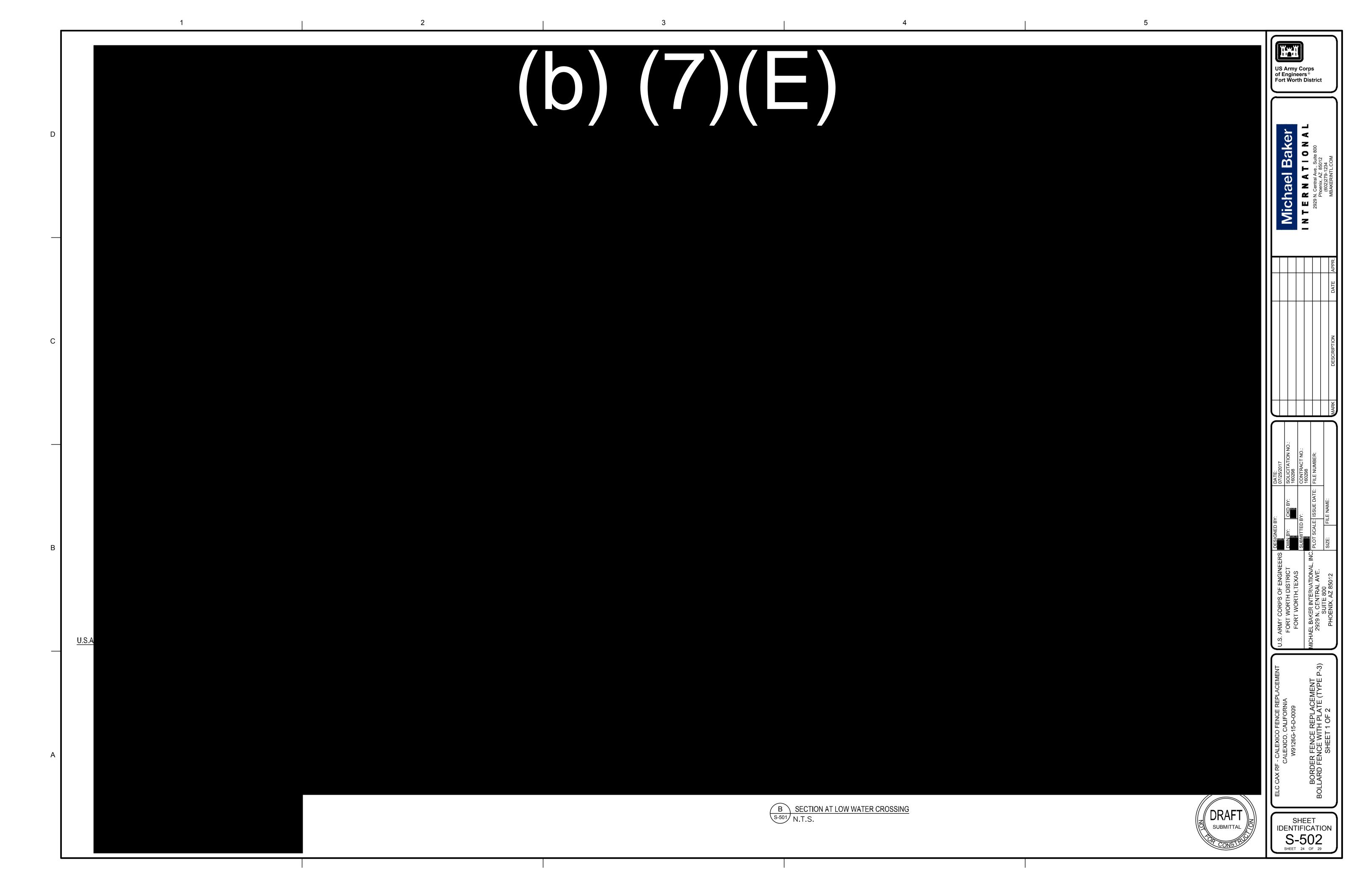
N.T.S. (LOOKING SOUTH) ELEVATION - GROUND SLOPE (b) (7)(E)
N.T.S. (LOOKING SOUTH) (b) (7)(E) DRAFT

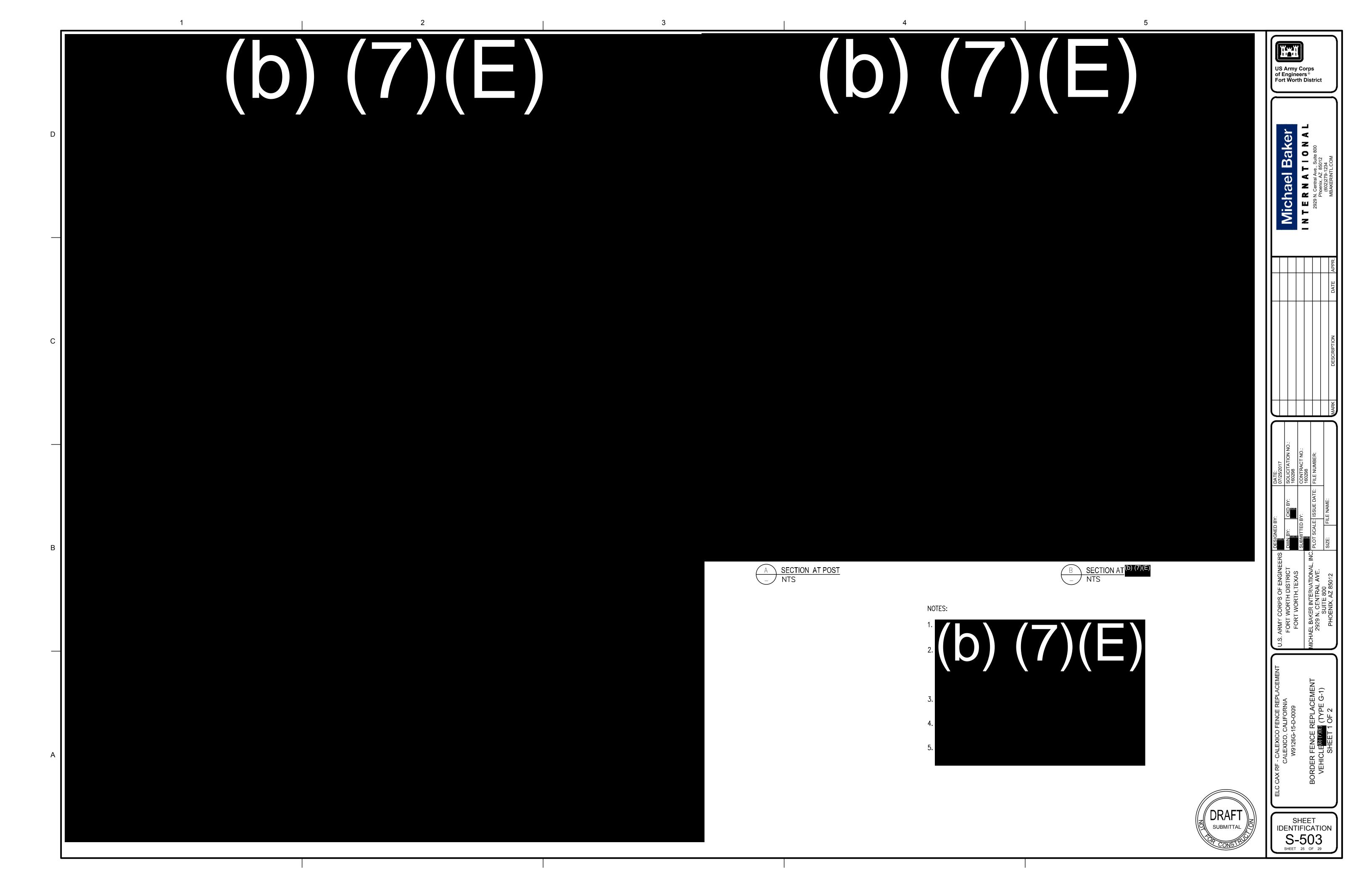
US Army Corps of Engineers® Fort Worth District

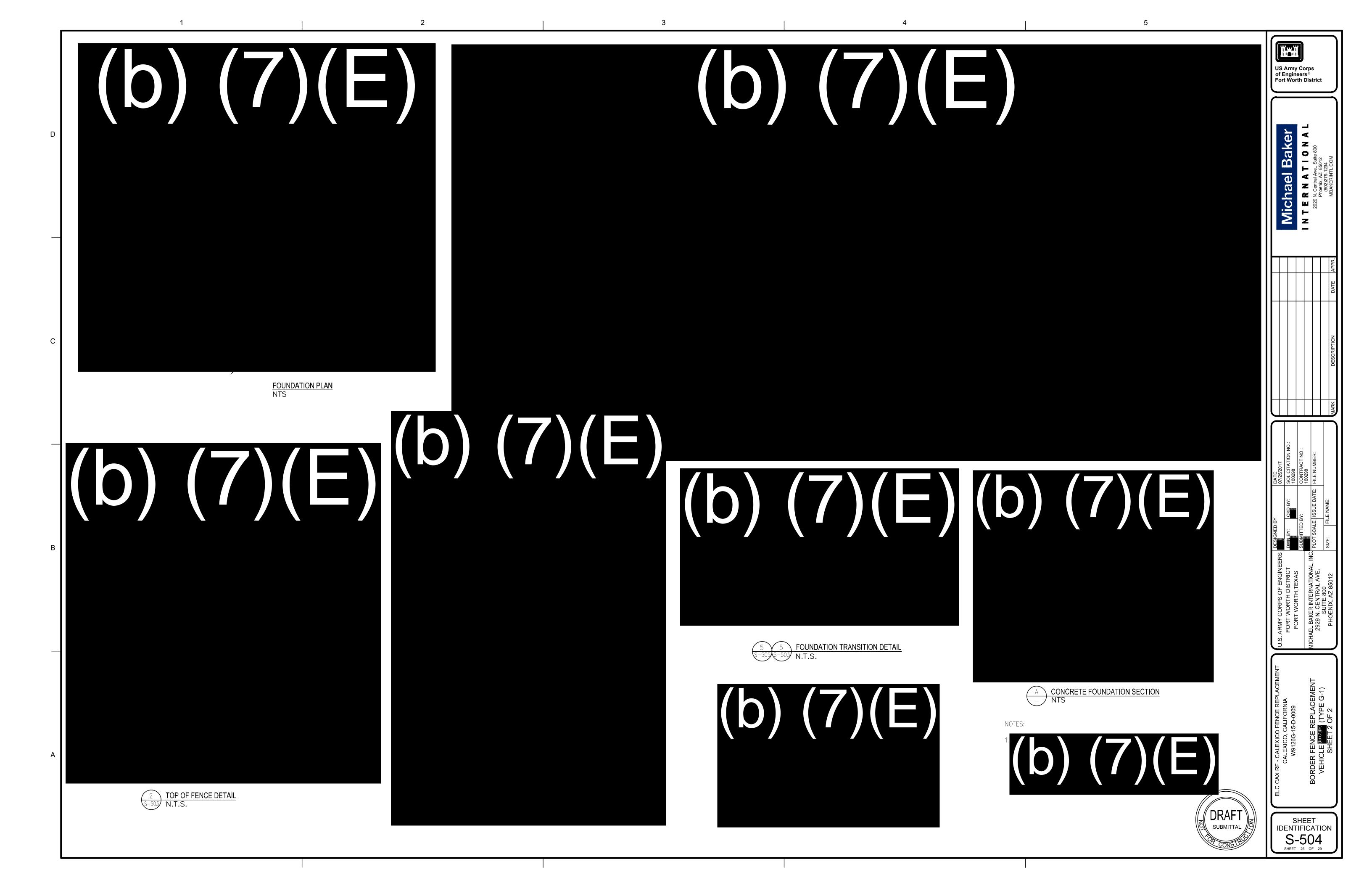
Michael Baker
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2929 N. Central Ave., Suite 800
Phoenix, AZ 85012

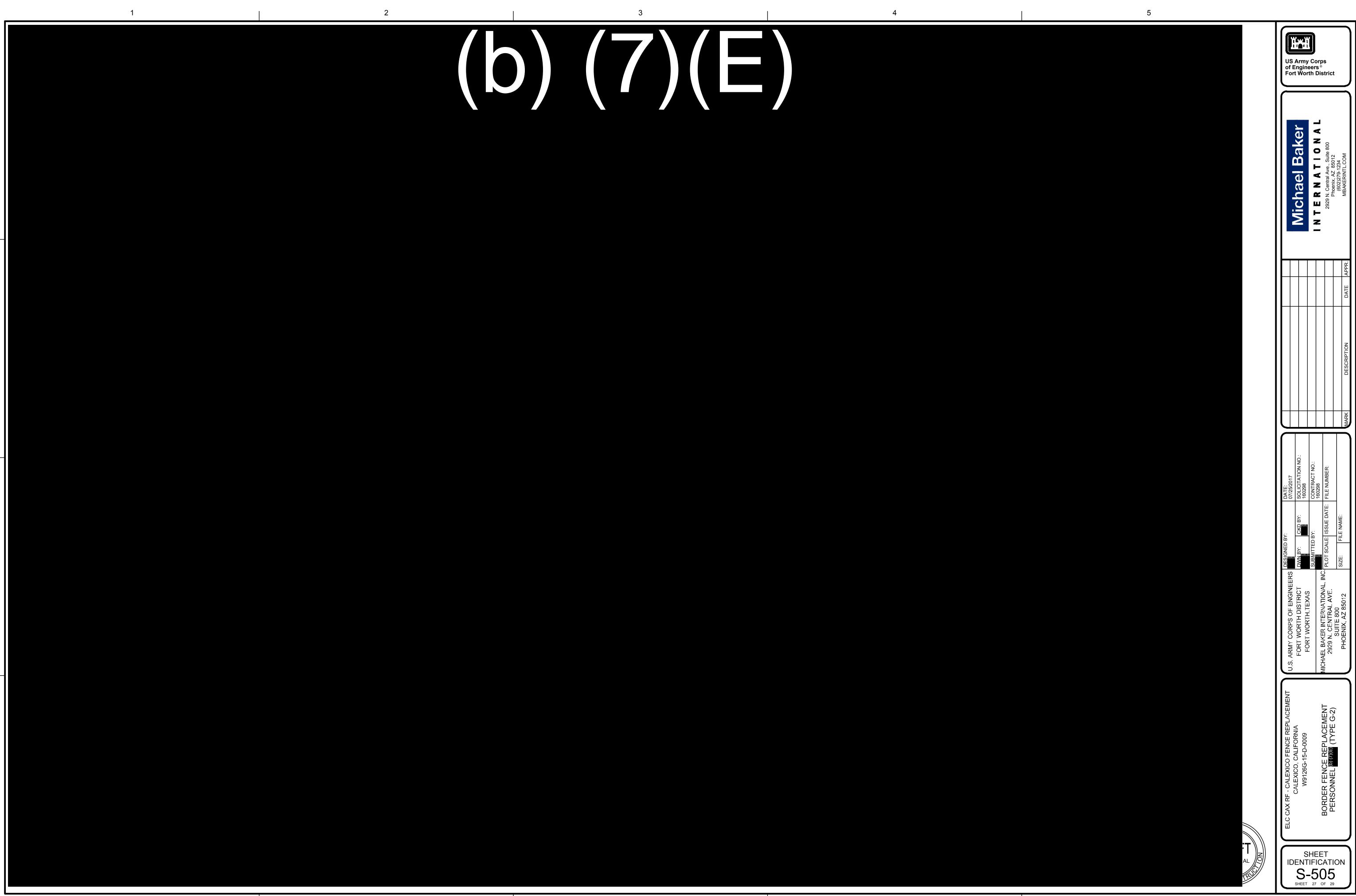
BORDER FENCE REPLACEMENT BOLLARD FENCE WITH PLATE (TYPE P-3) SHEET 1 OF 2 ELC CAX RF - CALEXICO FENCE REPLACEMENT CALEXICO, CALIFORNIA W9126G-15-D-0009

SHEET IDENTIFICATION S-501





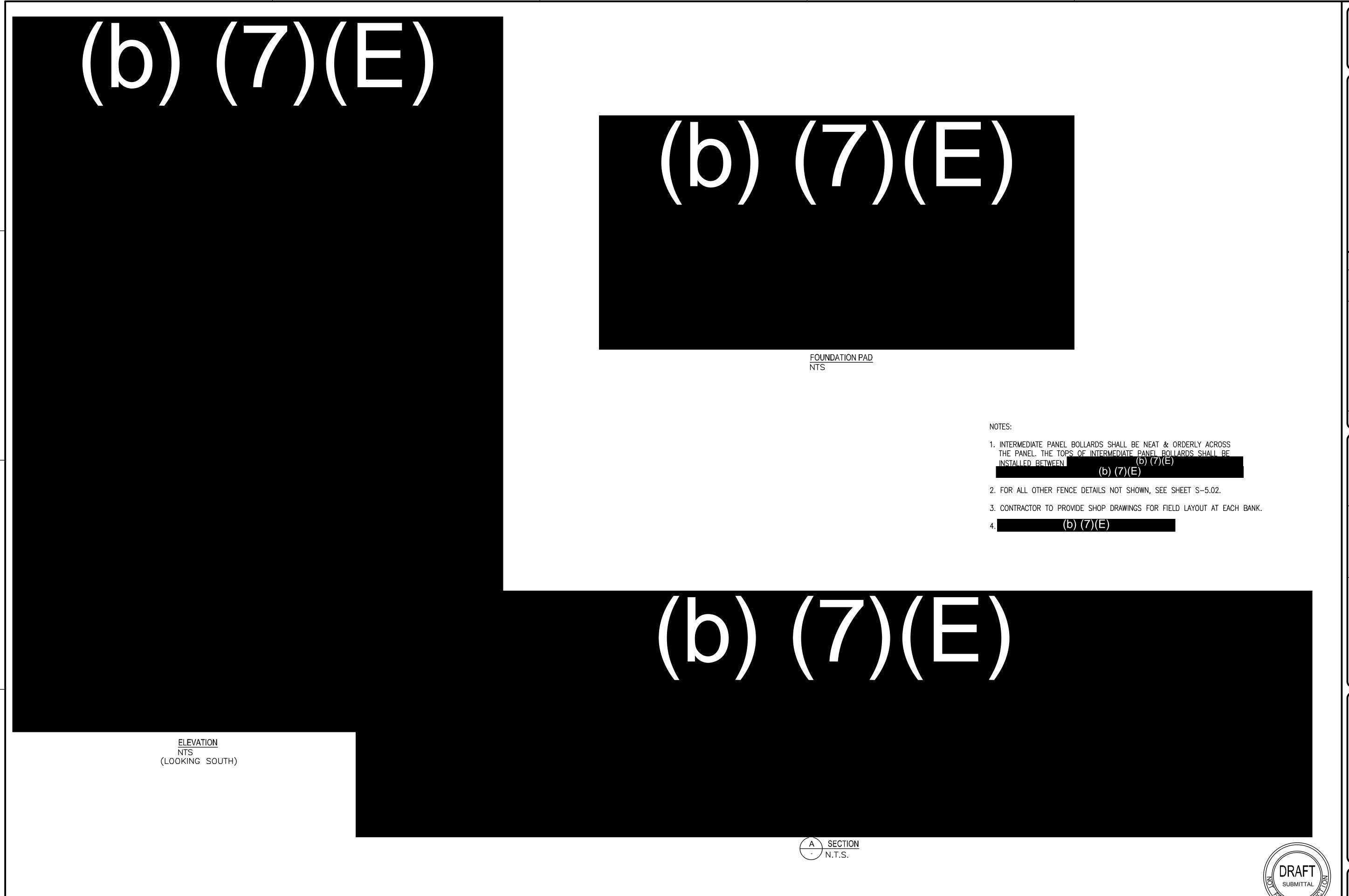




US Army Corps of Engineers® Fort Worth District

BORDER FENCE REPLACEMENT PERSONNEL (D) (TYPE G-2)

SHEET IDENTIFICATION S-505
SHEET 27 OF 29



US Army Corps of Engineers® Fort Worth District

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INTERNATI

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Phoenix, AZ 85011
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MBAKERINTI. COI

MARK DESCRIPTION DATE A

| CANED BY: DATE: 07/25/2017 | 07/25/2017 | 07/25/2017 | 07/25/2017 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 160298 | 16029

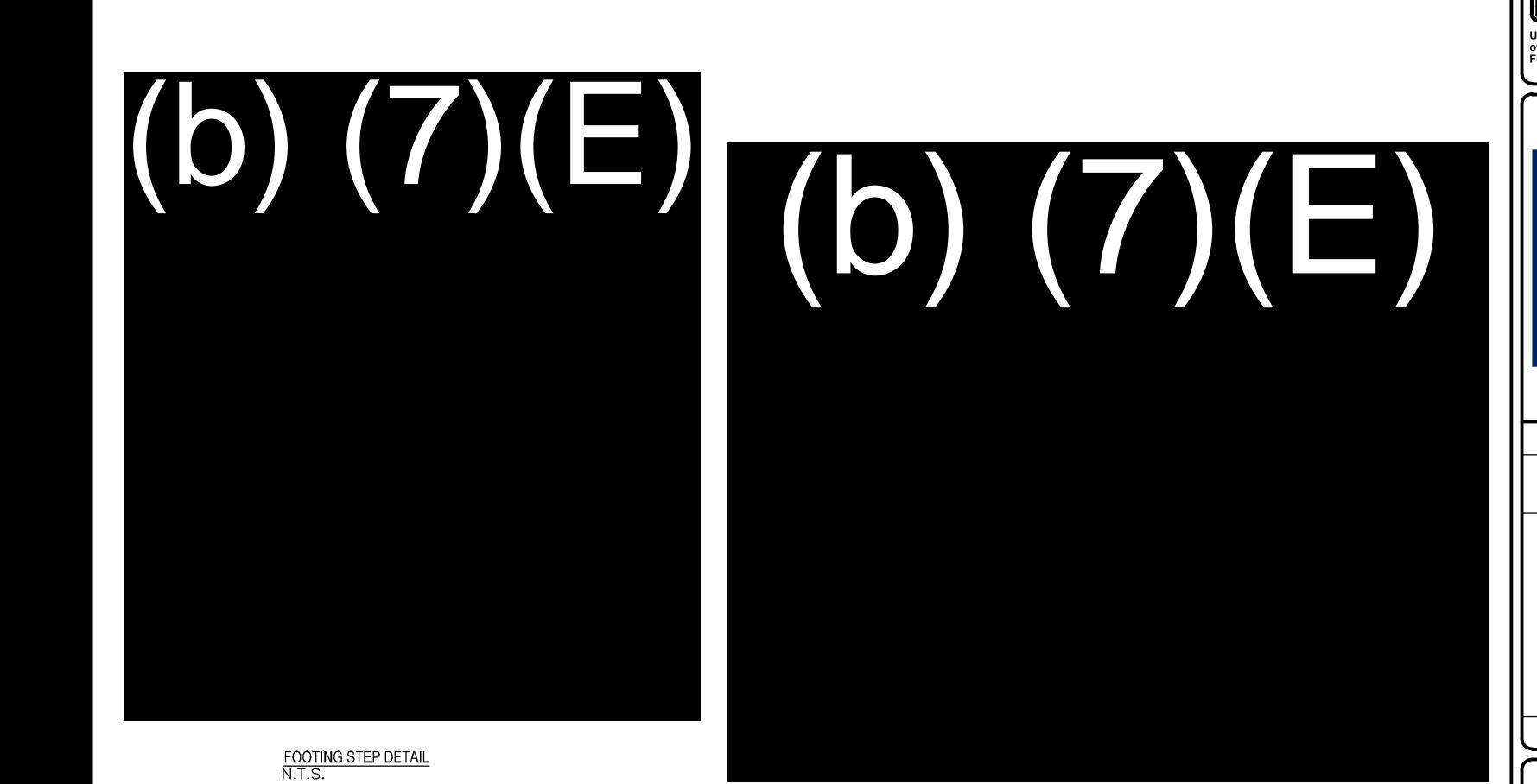
FORT WORTH DISTRICT
FORT WORTH, TEXAS
SUBMITTED BY
SUBMITTED
SUBMITTED BY
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CAX RF - CALEXICO FENCE REPLACEMENT
CALEXICO, CALIFORNIA
W9126G-15-D-0009
BORDER FENCE REPLACEMENT
CANTILEVER FENCE DETAILS

SHEET IDENTIFICATION S-506
SHEET 28 OF 29

(b) (7)(E)

FOOTING STEP DETAIL N.T.S.



CONSTRUCTION JOINT DETAIL N.T.S.

RETAINING WALL SECTION
N.T.S. (LOOKING EAST)

TABLE 1							
STATION	MAX HEIGHT	FOOTING WIDTH	TURNDOWN DEPTH	BARS V	BARS H		
			1				

* INCREASE AS REQUIRED TO MAINTAIN A MINIMUM OF MEXICO FINISHED GRADE TO BOTTOM OF TURNDOWN







SHEET IDENTIFICATION S-507
SHEET 29 OF 29